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No. 2.

PURE FOOD IN THE SENATE.

The Heyburn pure food bill, which is the pet measure of Senator Heyburn, chairman of the committee to which it was referred, and who "railroaded" it through his committee without a hearing, came up in the Senate Wednesday and was the subject of a lively argument. It has been patched and mended to suit opposing interests until it is a non-descript measure, but its author hopes to get it through ahead of other legislation.

WANT TO SUPPRESS TALLOW PLANT.

Officials of the Rochester Tallow Co., whose plant is located at Gates, on the outskirts of Rochester, have been summoned to Albany by Governor Higgins to show cause why their plant should not be suppressed as an alleged public nuisance. Residents of the vicinity with sensitive nostrils have exerted political pressure to have the plant closed or removed. The hearing was set for yesterday afternoon at the State capital.

MONEY FOR EXPORT MEAT INSPECTION.

Secretary Wilson has asked Congress for a deficiency appropriation of \$135,000 to defray the expense of additional microscopical and other inspection of meats intended for export. There has been such a heavy exportation of pork products that the government inspection force has been inadequate to deal with it, and as the foreign governments demand a United States inspection certificate, such inspection becomes vital to the export trade. The appropriation will be made a part of the first deficiency bill passed.

ICE COMBINE IN LOUISVILLE.

The Merchants' Ice and Cold Storage Co. has organized at Louisville, Ky., with a capital stock of \$1,500,000 for the purpose of taking over the plants and holdings of the Merchants' Refrigerating Company. Charles W. Inman, at present president of the old company; Henry Vogt and A. B. Schwartz are said to be at the head of the new company. In taking over the plants and holdings of the Merchants' Refrigerating Company, the new organization is reported to secure control of every ice plant in Louisville with the exception of two factories. It is said that an additional branch plant is soon to be erected on South Seventh street.

The stockholders of the old company are to receive \$1,350,000 in stock in the new company in lieu of their holdings in the old corporation.

STOCK BOARD CANNOT INSPECT MEAT.

A decision by Attorney General Stead of Illinois, on the question of meat inspection at Chicago packing plants, is considered a victory for the Chicago city inspectors, who have been trying to get control of meat inspection at the Chicago yards, and incidentally retires the state board from a function it has been performing for years. The attorney general gives it as his opinion that the Illinois state livestock board has authority to inspect livestock only, not meats. The board contemplated being party with the federal inspectors to a suit to enjoin the Chicago city inspectors from condemning carcasses passed by government and state inspectors. The whole trouble appears to arise over clash of authority between city and federal inspectors.

COTTON OIL REFINERY BURNED.

Fire originating from spontaneous combustion was discovered Wednesday afternoon in the Southern Cotton Oil Company's seed house at Charlotte, N. C. This building, together with its contents, consisting of several hundred carloads of cottonseed, was destroyed, and the flames spread to an adjoining refinery. Over 300,000 gallons of crude oil and much costly machinery was in this building, which was a total loss. The fire fighting facilities of the plant were inadequate to cope with the conflagration, and the Charlotte fire department was called upon for aid. After two hours' heroic work the progress of the fire was checked after the refinery and seed house had been destroyed. The plant embraces twelve large buildings in addition to the storage tanks, where 400,000 gallons of oil is stored. The loss is conservatively estimated at \$200,000.

PACKERS' HEARING PUT OFF.

Trial of the immunity contention of the packers' defense in the federal indictments against them at Chicago, which was to have begun this week, was postponed until next Wednesday at the request of Attorney Miller of the packers' counsel, who was detained in Washington in a case before the United States Supreme Court. The usual crop of daily press rumors concerning sensational developments was current. The only actual development was the sensational behavior of the government's official stenographer, who suddenly went insane—presumably from overwork, but more probably from too close and faithful reading of the "yellow" press reports of the case.

ARMOUR LOSES TAX CASE.

The United States Supreme Court, by a vote of five to four, has handed down a decision against the Armour Packing Company in its fight against the State of North Carolina's attempt to tax it on what is considered an unfair basis. The State brought suit to enforce collection of a tax for operating packinghouses, etc., none of which are located in that State. The company operates there only as a seller of meats, paying the other tax in the States in which its plants are located. But the highest court has ruled that the company must pay the tax imposed. This is considered an important precedent, since a number of Southern States have tried to force all the big packing companies to pay added heavy taxes on this ground.

In its defense the Armour company contended that it was not engaged in a packing business in the State, as it did no slaughtering there. The law also was attacked as an interference with inter-State commerce and as class legislation. Justices Brown, White, Peckham, and McKenna dissented from the decision on the ground that the Armour company was not engaged in a packinghouse business in the State, but in selling meat, and therefore should not be liable to the former tax.

SWIFT NOT HEADED FOR ARGENTINA.

Dreamers of the daily press are still spending that \$15,000,000 added capital stock for Swift & Company in various ways. The latest is the annexation of the Argentine Republic. According to a press dispatch last week Swift interests were planning to establish a big meat packing enterprise in the South American cattle paradise, and to do it before March 1, in order to be ready to take care of German trade barred from the United States after that date by expiration of the tariff agreement.

"Nothing to it," said Secretary D. E. Hartwell of Swift & Company in Chicago, when he saw the report. "We are not going into the packing business in Argentina. Such a story is a pure myth." L. A. Carton, treasurer of Swift & Company, also denied the truth of the rumor, characterizing it as absurd.

Another "speculation" indulged in by the daily press was the reported intention of Swift & Co. to secure control of the American Hide and Leather Co. and its many plants. It was said that Swift experts are now making an examination of these properties.

LIVESTOCK SLAUGHTER FIGURES FOR 1905

Official statistics of livestock movements and consumption at the chief packing centres of the country for 1905 indicate the steady advancement of the packing and livestock industries. The volume of edible livestock handled at the various centres was larger than the previous year by many hundreds of thousand head, as the detailed figures given below indicate. This synopsis is chiefly concerned with slaughters, however, and in that respect the previous year's record was exceeded by a comfortable margin, in spite of the handicaps which have burdened packers and the meat trade generally. Packinghouse expansion and enlargement is responsible for increased slaughters of all kinds of livestock, while the growing mutton and veal taste accounts for particularly heavy increases in consumption of sheep and calves. The calf slaughter was remarkably heavy as compared to 1904, and does not promise well for the maintenance of the future cattle supply when the increasing annual consumption is considered.

Over five million head of beef cattle were slaughtered in 1905, at eight of the chief centres. This is an increase of about 300,000 head over 1904, and it is probable that the two months packinghouse strike of the previous year is all that prevented a minus showing for 1905 in cattle slaughters. Poor trade and general conditions in the beef market were responsible. The hog slaughter at the centres mentioned amounted to over fifteen million head in 1905, an increase of more than a million over 1904. Half a million more sheep were slaughtered at these points than in the previous year, and the calf slaughter for six points alone increased 300,000 head over 1904.

Kansas City shows the greatest proportional increase in slaughter operations for the year, due to the opening of the big new Morris plant and increased output at the other plants, as well as a general advance in Kansas City's standing as a meat centre. Several new packing industries were completed toward the close of the year, and their operations will go toward swelling the output of 1906. Chicago passed the two million mark in cattle slaughters, and showed an especially heavy consumption of sheep. The St. Louis plants about held their own, while the new Armour plant at Sioux City swelled the slaughter records there. The only falling off at any of these centres was a slight diminution in cattle killing at St. Joseph, and in hogs and sheep at St. Paul.

Slaughters at the Chief Centres.

Consumption of edible livestock at the eight centres referred to during 1905 was as follows:

	Cattle.	Calves.	Hogs.	Sheep.
Chicago.....	2,000,256	354,008	5,607,632	3,380,693
Kansas City....	1,244,775	140,480	2,451,901	942,752
St. Louis.....	683,668	97,559	1,438,181	450,918
Omaha.....	681,757	.....	2,121,721	938,897
St. Joseph.....	367,916	36,018	1,829,076	679,962
Sioux City.....	137,819	4,047	1,019,060	16,614
St. Paul.....	119,399	27,306	825,454	179,821
Denver.....	50,286	.....	189,447	90,737
Totals.....	5,285,846	659,427	15,566,452	6,680,394
Totals for 1904.....	4,982,731	587,508	14,460,353	6,150,188

*Omaha and Denver calf slaughters not included in official reports.

Official reports of the movement of livestock at the various centres for December, 1905, and for the entire year, compared with similar periods of 1904, were as follows:

Chicago.				
	Cattle.	Calves.	Hogs.	Sheep.
December, 1905..	318,249	18,864	800,379	342,610
December, 1904..	282,922	15,754	804,679	318,312
Jan.-Dec., 1905..	3,410,460	380,835	7,725,738	4,736,558
Jan.-Dec., 1904..	3,259,185	267,499	7,238,746	4,504,630

Shipments.				
December, 1905..	130,105	3,224	189,229	51,902
December, 1904..	120,711	2,127	105,106	67,104
Jan.-Dec., 1905..	1,410,213	26,827	2,028,106	1,355,865
Jan.-Dec., 1904..	1,326,332	23,416	1,626,022	1,362,270

Consumed at Chicago.				
December, 1905..	188,144	15,640	611,150	290,708
December, 1904..	162,211	13,627	701,573	251,208
Jan.-Dec., 1905..	2,000,256	354,008	5,607,632	3,380,693
Jan.-Dec., 1904..	1,932,853	244,083	5,612,724	3,142,360
Average weight of hogs: December, 1905, 221 lbs.; December, 1904, 228 lbs. Average weight for 1905, 222 lbs.; for 1904, 229 lbs.				

Kansas City.				
	Cattle.	Calves.	Hogs.	Sheep.
December, 1905..	182,841	12,288	247,673	87,084
December, 1904..	132,423	9,754	206,199	59,162
Jan.-Dec., 1905..	2,180,491	242,091	2,507,532	1,318,968
Jan.-Dec., 1904..	1,906,610	166,861	2,227,170	1,004,009

Shipments.				
December, 1905..	74,914	7,000	6,406	15,137
December, 1904..	68,336	4,383	5,118	10,179
Jan.-Dec., 1905..	183,260	20,106	253,258	95,822
Jan.-Dec., 1904..	149,497	11,480	218,695	62,375

Consumed at Kansas City.				
December, 1905..	107,201	13,106	246,852	79,185
December, 1904..	70,161	7,097	213,577	51,796
Jan.-Dec., 1905..	1,244,775	140,480	2,451,901	942,752
Jan.-Dec., 1904..	1,012,665	98,619	2,083,020	731,250
Average weight of hogs: December, 1905, 214 lbs.; December, 1904, 194 lbs.				

*Feeders.

St. Louis.*				
	Cattle.	Calves.	Hogs.	Sheep.
December, 1905..	83,927	199,833	40,543	40,543
December, 1904..	76,559	188,095	48,222	48,222
Jan.-Dec., 1905..	1,124,063	2,026,463	645,104	645,104
Jan.-Dec., 1904..	1,074,126	1,954,902	687,890	687,890

Shipments.				
December, 1905..	25,801	49,758	3,940	3,940
December, 1904..	15,803	21,866	2,226	2,226
Jan.-Dec., 1905..	358,841	487,137	90,136	90,136
Jan.-Dec., 1904..	307,695	372,596	100,588	100,588

Consumed at St. Louis.				
Jan.-Dec., 1905..	765,162	1,539,296	554,968	554,968
Jan.-Dec., 1904..	766,431	1,582,306	587,308	587,308

*National Stock Yards, East St. Louis, Ill. Slaughter figures include purchases of all St. Louis and East St. Louis packers and butchers.

Omaha.				
	Cattle.	Calves.	Hogs.	Sheep.
December, 1905..	78,726	218,588	98,960	98,960
December, 1904..	68,176	213,883	87,880	87,880
Jan.-Dec., 1905..	1,026,392	2,293,956	1,970,502	1,970,502
Jan.-Dec., 1904..	944,192	2,299,627	1,754,365	1,754,365

Shipments.				
December, 1905..	22,189	3,095	40,565	40,565
December, 1904..	21,311	9,089	39,514	39,514
Jan.-Dec., 1905..	344,635	172,235	1,031,005	1,031,005
Jan.-Dec., 1904..	301,915	212,022	868,944	868,944

Consumed at Omaha.				
December, 1905..	58,277	218,369	68,072	68,072
December, 1904..	45,726	204,682	48,669	48,669
Jan.-Dec., 1905..	681,757	2,121,721	938,897	938,897
Jan.-Dec., 1904..	642,277	2,087,605	885,421	885,421
Average weight of hogs: December, 1905, 248 lbs.; December, 1904, 265 lbs.				

St. Joseph.				
	Cattle.	Calves.	Hogs.	Sheep.
December, 1905..	41,773	3,043	199,787	31,858
December, 1904..	43,140	2,312	204,055	26,751
Jan.-Dec., 1905..	501,200	45,488	1,900,433	980,834
Jan.-Dec., 1904..	530,549	36,712	1,656,849	749,379

Shipments.				
December, 1905..	9,848	521	3,840	3,460
December, 1904..	10,212	699	3,090	1,226
Jan.-Dec., 1905..	123,567	9,113	68,318	291,767
Jan.-Dec., 1904..	127,757	12,590	93,410	275,052

Consumed at St. Joseph.				
December, 1905..	31,713	2,824	195,679	28,063
December, 1904..	34,290	1,854	200,997	25,091
Jan.-Dec., 1905..	367,916	36,018	1,829,076	679,962
Jan.-Dec., 1904..	406,467	23,831	1,562,340	500,006
Average weight of hogs: December, 1905, 218 lbs.; December, 1904, 222 lbs. Average weight for 1905, 225 lbs.; for 1904, 228 lbs.				

Sioux City.

Receipts.				
	Cattle.	Calves.	Hogs.	Sheep.
December, 1905..	23,476	1,325	133,514	8,103
December, 1904..	31,884	563	151,834	3,042
Jan.-Dec., 1905..	394,267	8,688	1,298,685	56,582
Jan.-Dec., 1904..	326,657	4,636	1,113,177	28,464

Shipments.				
December, 1905..	11,255	895	29,284	5,026
December, 1904..	15,611	386	57,687	2,337
Jan.-Dec., 1905..	225,238	4,280	2,134	26,416
Jan.-Dec., 1904..	206,545	1,306	616	7,229

Consumed at Sioux City.				
December, 1905..	11,420	398	104,187	3,063
December, 1904..	12,684	138	94,045	903
Jan.-Dec., 1905..	137,819	4,047	1,019,060	16,614
Jan.-Dec., 1904..	68,913	2,686	500,008	6,199

Average weight of hogs: December, 1905, 259 lbs.; December, 1904, 269 lbs. Average weight for 1905, 244 lbs.; for 1904, 245 lbs.

St. Paul.

Receipts.				
	Cattle.	Calves.	Hogs.	Sheep.
December, 1905..	22,805	2,274	94,187	29,763
December, 1904..	25,090	1,905	100,479	43,463
Jan.-Dec., 1905..	488,565	53,537	855,237	818,437
Jan.-Dec., 1904..	389,300	37,326	881,635	772,706

Shipments.				
December, 1905..	14,914	748	5,826	11,616
December, 1904..	15,410	540	7,218	29,507
Jan.-Dec., 1905..	351,945	22,352	33,198	612,341
Jan.-Dec., 1904..	275,493	17,587	71,654	622,290

Consumed at St. Paul.*				
December, 1905..	9,393	1,473	88,921	12,075
December, 1904..	10,750	983	100,286	14,363
Jan.-Dec., 1905..	119,369	27,306	825,434	179,821
Jan.-Dec., 1904..	105,963	18,289	877,278	190,780

Average weight of hogs: December, 1905, 209 lbs.; December, 1904, 203 lbs. Average weight for 1905, 208 lbs.; for 1904, 209 lbs.

*Includes St. Paul and Duluth butchers.

Denver.

Receipts.				
	Cattle.	Calves.	Hogs.	Sheep.
December, 1905..	27,467	12,078	44,484	44,484
December, 1904..	20,220	12,609	48,177	48,177
Jan.-Dec., 1905..	294,044	190,523	737,905	737,905
Jan.-Dec., 1904..	265,462	161,954	519,190	519,190

Shipments.				
December, 1905..	22,350	1,083	48,950	48,950
December, 1904..	17,155	1,419	48,446	48,446
Jan.-Dec., 1905..	235,740	6,973	645,783	645,783
Jan.-Dec., 1904..	215,151	6,882	421,322	421,322

Consumed in Denver.				
December, 1905..	5,163	10,890	7,231	7,231
December, 1904..	5,798	11,189	3,809	3,809
Jan.-Dec., 1905..	50,286	183,447	90,737	90,737
Jan.-Dec., 1904..	47,162	153,072	97,866	97,866

Average weight of hogs: December, 1905, 237 lbs.; average weight for 1905, 246 lbs.

Are you a packinghouse man in search of a good job at the right salary? Watch page 48.

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THE PRIVATE FREIGHT CAR SYSTEM

By J. Ogden Armour.*

A clear and fair understanding of the private freight car problem is wholly impossible without some knowledge of why and how the private car came into existence and how the system has been developed to its present proportions. Equally important to a right conclusion in this matter is a knowledge of the source and the animus of the present agitation, the avowed purpose of which is to put the private car out of business. Unless these things are clearly set forth the meat of the whole contention is missed.

But before I attempt to present these essential facts let me say that I believe in the fairness of the American people, and that when once they get a clear understanding of a cause they will render a righteous judgment. President Roosevelt has put the disposition of this people most descriptively in declaring that they are "for a square deal." It is because I believe this so profoundly that I make the statements contained in this paper and those which will follow it. Any man who has a just cause need not, I believe, fear to appeal to the American people when he can be sure of reaching practically the whole people direct, and is also assured that he is not, in stating his case, liable to be misquoted or in any manner misrepresented.

The storm centre of the present controversy is the private fruit and produce car; consequently this must for the moment command the greater attention. The fact remains, however, that the meat car was the pioneer in the private field, and that the fruit car was a direct evolution from it.

Old Way of Shipping Meat.

It has always seemed to me that the very manner in which the private car came into being is enough clearly to justify its existence in the mind of any fairly-disposed man of affairs.

In the old days cattle were moved from the Middle West to the East alive and on the hoof. This movement from the prairies, where the cattle could be most cheaply grown, to the centers of population in a part of the country ill adapted to grazing, but where the demand for the meat was the strongest, was found to be very expensive, inland transportation then being both poor and costly. A steer weighing 1,000 pounds would dress 550 pounds. This is only another way of saying that shipping on the hoof meant paying high freight charges on 450 pounds of what was then practically all waste material, and quite a large portion of the 550 pounds of dressed meat also consisted of bone and other waste matter that could not be eaten. Of course, dressed meat could be shipped for a limited distance in freezing weather, but always with great risk, transportation then being slow, crude and uncertain. During the warmer months traffic in dressed meats was therefore confined to the local field.

Under these conditions it did not require any marvelous amount of acumen to see that the business could not be expanded beyond the local field, as far as the warmer months were concerned, unless some adequate means of protecting the meat against the effects of high temperature while in transit and until sold could be devised. Probably it is fair to say that the packers would have been decidedly obtuse if they had failed to see that the salvation and expansion of their business was locked up in

the then undiscovered secret of how to ship dressed meats under some kind of cooling process that could be depended upon to keep them in good condition, and that should not be too expensive.

On the one hand, in the prairies of the West was the natural basis for almost unlimited expansion in the growing of cattle at the minimum of cost; on the other hand, the cities and the more thickly settled sections of the East and South were calling for this meat from the prairies. The expense of shipping cattle from the West to the East was practically prohibitive so far as the natural growth of the cattle industry was concerned. The hour had struck for that great economic and industrial step: the appearance of the first crude meat refrigerator car.

The First Refrigerator Car.

Properly speaking it was not a refrigerator car at all; simply a big icebox on wheels with the cargo of meat heaped upon the ice and coming directly in contact with it. Mr. Hammond, then of Detroit, is believed to have made the first fairly successful experiment in the building of a meat refrigerator car in 1871. Although stationary refrigerators were at that time in limited use, the facilities of the average Eastern butcher or retailer for keeping meats were poor, and the Western killers had, of course, no branch houses or distributing stations. The meat which came in contact with the ice became discolored and spoiled quickly when taken off and subjected to the inadequate refrigeration then almost universal. To remedy this difficulty cars were so equipped that the meat could be suspended from the rafters and ceiling, with the result that when the car was in motion and going around curves the halves of meat were set swinging like pendulums and finally communicated their motion to the car. Several wrecks occurred which were attributed to this cause and the hostility of the railroads was awakened.

The next step in this evolutionary process was that of partitioning off one end of the car into an ice bin, or bunker, the meat being suspended in the body of the car in a proper manner. This was a decided improvement and the meat carried in these cars arrived in better condition. However, the true principle of car refrigeration eluded the experimenters for several years, but finally one of them hit it squarely and brought out the fact that a draft of air passing through a bunker, or ice chest, in the upper corner of a car, becomes chilled so that it is heavier than the air which it meets, and consequently it drops down, circulating through the car, and finally, after it has lost its chill and becomes lighter than the incoming current, rises and passes out of the ventilator. Thus a current of fresh chilled air is constantly circulating about the meat, which is securely racked and does not touch the ice at all.

About the time this principle of car refrigeration was clearly established my father recognized its permanence and its relation to the future of the meat business. He saw that the meat refrigerator car hitched the packing busi-

ness to the growth of this country, that it annexed to the Western ranges and prairie pastures the thickly-populated manufacturing and commercial centers of the East. Perhaps the other packers saw this as clearly as he did; certainly they were all interested in the development of the refrigerator car. But he was tremendously in earnest in this matter, and went to the management of the railroads over which he would naturally ship the most meat and asked for the building of a small number of these cars.

He was very promptly informed that this could not be done, that the demands for expenditures in the ordinary avenues were too great to justify going into a side issue of this kind. This brought him face to face with an emergency of almost critical importance. He saw that refrigerator cars for the shipment of dressed meats were an absolute necessity, that their hour had arrived, and that the packer who did not recognize as inevitable this great change in the industry and make the most of it would drop behind in the irresistible movement of events. On the other hand, his own business was, like that of the railroads, growing faster than his capital; he had hard work to keep up with it and needed more money in the routine expansion of the industry than he could command, without putting thousands of dollars into cars of the most expensive kind.

All the vigor with which he could urge his case, his confidence in the great volume of business to be developed by the meat refrigerator car, failed to move the railroad managers to whom he appealed, and he finally found himself absolutely forced as a matter of self-protection to the building of the first private car of the Armour system. To do this was then a decided hardship, an alternative which he adopted only because he saw it to be a matter of the sternest necessity. At that time the cars cost something more than \$1,200 each, and because of the demand which he felt for money in the regular channels of his growing business he could build only a small portion of the cars which he really needed.

The meat refrigerator car accomplished all that my father expected and more. Industrially it influenced the most important economic development of the packing business—the utilization of waste material in the manufacture of by-products. What this phase of the industry means to the people of the United States and to the packers I shall try to tell in another article; but it is merely suggested in the statement that by its economies the packers are able to ship meat into thousands of localities remote from the great source of supply in the West, and sell a superior "cut" at a lower price than the butcher can sell an inferior "cut" taken from a home-grown meat animal killed in his own slaughter house.

Effect on the Fruit Industry.

But the refrigerator car was destined to do more than revolutionize the meat industry. It was to place upon the tables of the people in cities and towns delicate and delicious fruits, berries and vegetables grown in remote localities, as it had already brought to them the fresh meats from the prairies and ranges. Very early in the history of the meat refrigerator car my father, who had been a farmer boy in the fruit belt of New York State, became thoroughly convinced that refrigeration was the magic that would work as great a liberation and expansion for the fruit business as it had for the cattle industry.

After watching the results of experiments
(Continued on page 37.)

*This is the first in a series of six articles by Mr. Armour presenting the packers' side of the several questions relating to their business which have been before the public. Copyright, 1906, by The Curtis Publishing Co. Reprinted by special permission from The Saturday Evening Post of Philadelphia.

DEATH OF GEORGE J. BRINE

George J. Brine, of Armour & Company, died at his home in Chicago on Thursday of last week, after suffering an illness which confined him to his residence for several months. The simple announcement will be enough to cause a feeling of deepest sadness in the minds of hundreds of men engaged in the meat and allied industries, who knew him as a prince among men—one of the only too few such one meets in a lifetime. Though his death had been expected for a long time past, the shock of it is but little lessened because of anticipation, for those who knew him have hoped against hope that he would be spared. The boon of his presence has not been vouchsafed, and it is the painful duty of The National Provisioner, whose friend he was, to announce his demise.

Mr. Brine was for many years one of the staff of managers of Armour & Company, a confidential position which implied capacity, uprightness and tact, and in all of these he was a master. Cool and quiet in his demeanor, those who met him were impressed with his bigness of mind, yet withal his lack of ostentation. The accompanying portrait, his latest, shows him in characteristic attitude, the perfect gentleman in every respect, and it will clearly call him to mind to all who have met him.

His judgment was unerring, his disposition was positive and just, and a subject for investigation and report when placed in his hands was pursued to the minutest details. His conclusions were logical and plain. He had lived through almost two generations, and in each period he had made a host of friends.

Mr. Brine was 66 years of age. He had been ill for seven months from a complication of diseases, of which heart trouble was the most serious and the immediate cause of his death. He is survived by a widow and one daughter, Mrs. John Seovel.

He was buried on Sunday, January 7, at Graceland Cemetery, Chicago, attended by a large concourse of relatives and friends, among the latter being some of the head men of Armour & Company, and newspaper representatives, among whom he had a large acquaintance. The funeral exercises were conducted at the residence, No. 2443 Kenmore avenue, by Dr. Gunsaulus of the Central Church who was a personal friend.

Mr. Brine was born in St. Johns, Newfoundland in 1839. He received his education in that city and went to Chicago in 1859, where he had since resided continuously. Mr. Brine became a member of the Chicago Board of Trade in 1862, which he left later to become one of the members of the staff of Armour & Company, and from that time until his death he was active in their interests.

CANADA AND AMERICAN HOGS.

The amended Canadian regulations which are expected to prevent hereafter the slaughter

of American hogs in bond in Canada are now in force. The added clause which will stop the importation is the 30 days quarantine restriction, which makes it impracticable for Canadian packers to import hogs. The regulation now reads:

"Sec. 45. All swine must be accompanied by a certificate signed by a veterinarian of the United States Bureau of Animal Industry stating that neither swine plague nor hog cholera has existed within a radius of five miles of the premises in which they have been kept for a period six months immediately preceding the date of shipment, but such swine shall nevertheless be inspected, and shall be subjected to a quarantine of thirty days be-

been able to do in past years. A very large per cent. of the output of the Dominion packers have come from the United States and have been slaughtered in bond."

Canadian hog raisers are jubilant over the prospect of increased prices for their hogs, but even their own newspapers admit that they will have to show more interest and diligence in providing a supply if they expect Canada's bacon industry to continue in existence.

THE SWIFT ANNUAL MEETING.

As announced in the last issue of The National Provisioner, the annual meeting of the stockholders of Swift & Company was held last Thursday at the Chicago headquarters, the old official board being re-elected, while an increase in capital stock of \$15,000,000 was authorized. The original proposition was to add \$25,000,000 to the capital stock, but the increase finally decided on makes the capitalization an even \$50,000,000. This added amount, as before stated, is for taking care of increasing business and the improvement of present plants.

In submitting his annual financial report, Treasurer L. A. Carton made this statement: "To meet the demands of a business that looks to increased trade for its profits and sets the standard of small margin upon its enlarging turn-over, the directors will submit to the stockholders at this meeting the increase of the capital stock by \$15,000,000, bringing the capital of the company up to \$50,000,000. It will be the privilege of each of the present stockholders to subscribe for his proportion of this new stock at par, and we hope all will do so. The financial statement will show the substantial character of the investment. We have had to make use of borrowed capital to a much larger extent than usual, and, while this was proper, a large increase in borrowed capital should be supplemented by subscribed capital to give steadiness to the operations and render the same more independent of outside conditions in the money market.

"We have done more than \$200,000,000 of business and made less than 2 per cent. upon the turnover. Our representatives are in every civilized country, trying to make a market for the product of the American farmer and ranchman, and we claim not a little credit for the prosperity that has been so marked in these industries, and are proud to have a hand in furthering them, and we hope the farmers and ranchmen will see to it that the product of their livestock is not barred by unwise legislation from any country where they should find a market.

"We have paid in dividends during the year \$2,450,000 and added to surplus \$1,750,000, besides keeping the condition of our properties up to the highest standard."

(Continued on page 42.)



The Late George J. Brine

fore being allowed to come in contact with Canadian animals.

"Sec. 46. Swine found to be suffering from contagious disease will be subject to slaughter without compensation."

Canadian packers are very sore. "The prohibiting of the slaughtering of hogs in bond shipped from the United States, as has been done for many years, will work a great hardship on the Canadian packers," said one. "In the past packers have been able to keep their plants in operation all the time, and American hogs killed and cured here and exported to England has been very beneficial to the home industry. Hereafter packers will not be able to keep their plants in operation nearly all the time unless they are able to purchase a great many more Canadian porkers than they have

TRADE GLEANINGS

The plant of the Alpha Process Works, at Claymont, Del., has been burned, entailing a loss of \$30,000.

R. Hunter has leased the Western Cattle Market privileges at Toronto, Ont., at a rental of \$36,000 per annum.

The Crescent Leather Company has been incorporated at Newark, N. J., with a capital stock of \$10,000, by George B. J. Frank and Emma I. Dwyer.

The National Live Stock Feeding Company has been incorporated at St. Paul, Minn., with a capital of \$50,000, by Frank Thuet and S. J. Melady.

Burglars made an attempt to dynamite the branch house of the Cudahy Packing Company at Springfield, Ill., one night last week. They got nothing.

C. B. Medford will build a pork packing and cold storage plant on Kensington avenue, Philadelphia, at its junction with the Pennsylvania railroad tracks.

Nelson Morris & Company have taken out permits for a \$46,000 addition to their new plant at Kansas City, including a glue factory, box factory and barn.

The Blakely Oil and Fertilizer Company's main building and seed house at Blakely, Ga., were destroyed by fire last Saturday, with a loss of \$52,000, partly insured.

The Carstens Packing Company of Seattle, Wash., will build a branch house and provision and cold storage plant at East Aberdeen, Wash., at a cost of \$10,000.

The American Can Company is building at Maywood, Ill., a plant exclusively for packers' cans, with a capacity of a million cans daily. This is the company's largest plant.

The Theo. B. Robertson Soap Company has been incorporated at Chicago with a capital stock of \$1,000 by Eugene W. B. Flesch, Daniel W. Fishel and Theo. B. Robertson.

The New York Can Manufacturing Company has been incorporated with a capital stock of \$5,000, by H. R. Berlinische, H. C. Adams, of New York, and J. M. Nolan, Paterson, N. J.

The Virginia-Carolina Chemical Company and the Georgia Cotton Oil Company suffered severely from a tornado which wrecked some of their buildings at Albany, Ga., last week.

The High Grade Lard Company has been incorporated at Baltimore, Md., with a capital stock of \$5,000, by P. C. Fresh, W. W. Dorman, Frank Ruckle, G. B. Burrows and Neal Chappell.

The Rancer Company has been formed at Chicago, with \$2,000 capital, to manufacture soaps and perfumes. The incorporators are F. E. Wagner, Wm. T. Wagner and Wm. A. Merkel.

E. H. Moulton has bought the Haverhill Beef Company's plant at Haverhill, Mass., and will sell the Hammond Company's beef at that house, while selling Swift beef at his old place on Essex street.

The National Live Stock Commission Company has been incorporated at St. Paul, Minn., with a capital stock of \$100,000. The incorporators are Thomas Kelly, John C. White and Charles Kelly of Chicago.

A new cooperage house is being added to the Morris plant at St. Joseph, Mo., and the killing beds, dressing and cutting rooms and offal departments of the entire plant are being fitted up with brick and asphalt floors.

Another story is to be added to the cold storage warehouse of the Swift plant at St. Joseph, Mo., to increase the egg storage capacity by fifty carloads. This will make the total capacity about 260 cars, or 40,000,000 eggs.

The New England Provision Company has been incorporated at Providence, R. I., with a capital stock of \$25,000, to handle meats and provisions. The incorporators are W. Coates of Providence and Charles Wilson of Warwick.

The Wilkes-Barre Beef Company opened its new house at Wilkes-Barre, Pa., this week. It will handle National Packing Company products. Michael Czajkowski is manager and one of the three owners, the others being Scranton men.

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PROPOSED FEDERAL FOOD LAW AS REVISED

The attitude of food manufacturers and commercial interests generally on national pure food legislation is represented in the revised draft of the so-called Lannen bill for a federal food law, which will be introduced at the present session of Congress as a proposed substitute for bills now pending. This bill was drawn by Secretary Thomas E. Lannen of the National Food Manufacturers' Association some months ago, and its provisions given wide publicity and general discussion. Profiting by that experience, the framers of the measure have revised it in some particulars, and now make it public in its amended form.

The original Lannen bill was extensively reviewed in The National Provisioner's columns on November 18 last. The changes which have been made, and the reasons for them given by the framers, are explained in the following communication from Chairman Yerington of the association's board of directors:

To The National Provisioner:—We take pleasure in sending you herewith a draft of a proposed national food law which has the approval and endorsement of the members of this association. This is the bill that has been referred to extensively and favorably by the daily and commercial press of the country as the Lannen bill, and is now in a revised and completed form. During the discussions of this bill by the press, the members of our association, and the food manufacturers generally, as well as by neutral interests during the past few months, careful notice was taken of all the points raised or amendments suggested, and after a most careful consideration of the same the points that seemed well taken were embodied in the bill in its present form. We therefore believe that in this bill we have a measure that is as nearly acceptable to all the various food and drug interests of the country, as well as practical and eminently fair, as any measure that can be framed to meet the conditions which exist, and also protect the consumer.

In framing this measure every issue has been fairly met and treated, and nothing has been avoided. Indeed, it would be unwise to avoid any of the issues in the food contro-

versy, because the food manufacturers are asking nothing more than will enable them to conduct a practical and legitimate business; and if they do not get all they are asking for they will still be hampered and harassed in their business, no matter how legitimate that business may be.

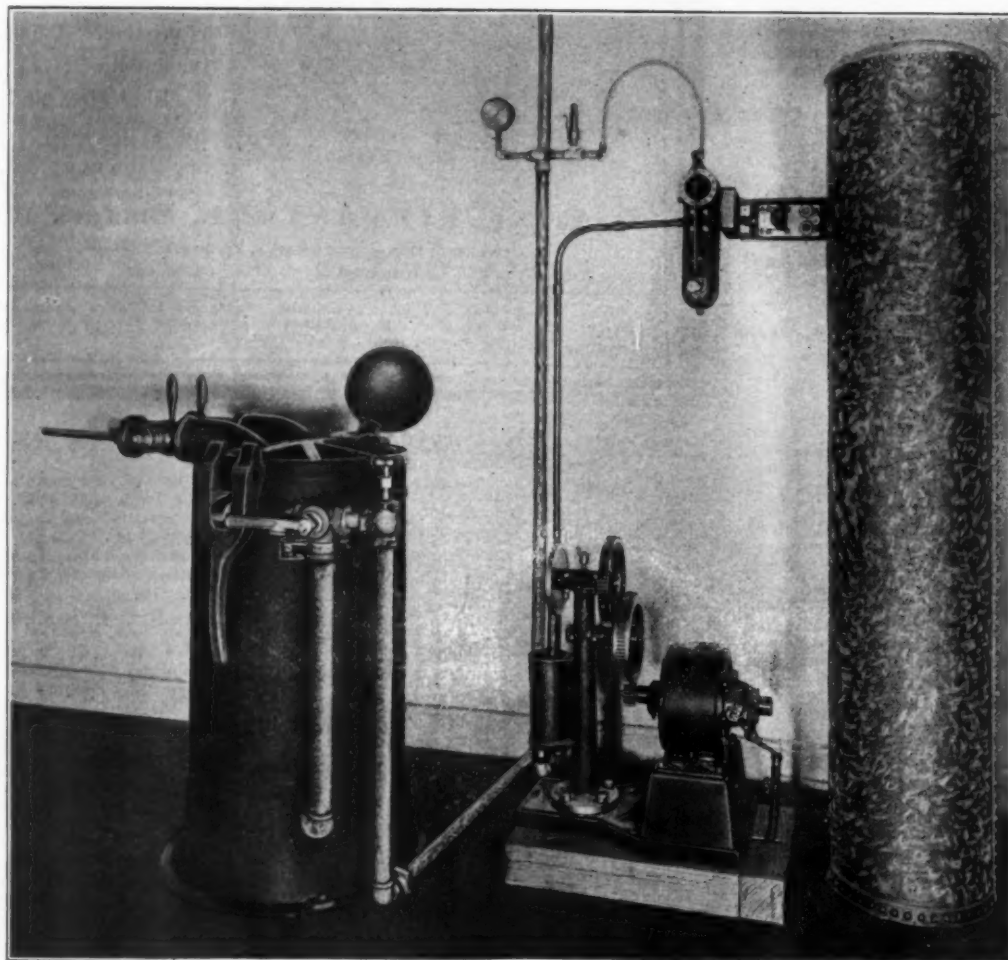
We wish to call attention briefly to the salient points in this bill:

First—We ask that the manufacturer be held responsible for the character of the goods shipped by him only while those goods remain in the original unbroken package in the form packed by him for shipment, and only while the article is an article of interstate commerce and subject to the provisions of a national food law. A manufacturer can comply with a plain and uniform national law, but he cannot and should not be asked to comply with different laws in different States, inconsistent with each other, and perhaps inconsistent with a national law, and subject to change and retroactive in their effect.

Second—We ask that the enforcement of the law be placed in the Department of Commerce and Labor and not in the Department of Agriculture. The Department of Commerce and Labor is a department expressly created by the Congress of the United States to have charge of and to promote the best interests of commerce and manufacture. This department, therefore, is pre-eminently fitted to have charge of the enforcement of a law regulating commerce in all its phases. The department of Agriculture is a department concerned with propagating the agricultural industries of the country, and should be confined to its own work. The work of the Department of Agriculture is to a large extent along experimental and theoretical lines, and we believe we are justified in saying that the food manufacturers of the country, whose wishes should be considered in all matters vital to their legitimate interests, are almost unanimously opposed to placing the enforcement of a food law in the Department of Agriculture. In addition to this we believe it to be the consensus of opinion of all those familiar with the situation that the Department of Commerce and Labor and not the Department of Agriculture should have the enforcement of this law.

Third—The analyzing of food products is placed in the division of Chemistry of the Hygienic Laboratory of the Public Health and (Continued on page 26.)

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Outfit consists of Stuffer, Air Compressor, electrically driven, Air Tank and Automatic Starting device.

No heat, no waste steam, safe, simple and economical. Works automatically.

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THE BEEF INDUSTRY

Report of James R. Garfield, Commissioner of Corporations, United States Department of Commerce and Labor.

CHAPTER V.—COMPARISON OF THE PRICES OF CATTLE AND OF DRESSED BEEF. (Continued from last week.)

Value of By-Products.

The cost of beef is determined in part by the value of the by-products. The price of the live animal is reckoned to include the material for by-products as well as the beef, and the value of the by-products is regarded in the trade as a credit to the cost account of beef, or in other words, a minus cost. This is, of course, a rather arbitrary way of looking at the by-products account, because after all by-products are joint products, and the situation of the beef market (the prices of beef and the number of beef cattle slaughtered) determine in a considerable measure the prices of the by-products. The value of the latter, though small in comparison with the value of beef, is still important enough to considerably affect the total value.

In the first half of 1903, for example, it is calculated for a large concern in Chicago that the average live weight was 1,165 pounds, the average dressed weight was 665 pounds, the average live price was \$4.56, the average cost on dressed weight was \$7.99, the average net value of hides was \$6.64, the net value of hides per hundredweight of dressed beef was \$1, the net value of butter fat was \$3.95, the value per hundredweight of dressed beef was 59 cents, the net value of other by-products was \$1.00, and the value of other by-products per hundredweight of dressed beef was 24 cents. The total value of by-products amounts to \$12.19, or \$1.83 per hundredweight of dressed beef.

The cost of killing, shipping and selling was \$1.891 (excluding interest), which equals 28.4 cents per hundredweight. This should be deducted from the credit coming to the packer on the by-products in order to give the net credit he receives on the cost of cattle (reckoned on dressed weight). The difference, or net credit, is therefore \$1.55 per hundredweight. These statistics show that with an average live price of \$4.56 the cost per hundredweight of dressed beef would be \$7.99, and the cost of making and selling the beef 28.4 cents in addition, but that there is a credit on by-products amounting to \$1.83. Hence the cost price of the beef (excluding interest on capital) would be \$6.44, and the margin between live price of cattle and net cost of dressed beef \$1.88.

In order to show the influence of these factors during the last few years, the by-product statistics for the same concern are tabulated below:

By-products.	1902.			
	January-June.		July-December.	
	Per head.	Per cwt., d. w. 628 lbs.	Per head.	Per cwt., d. w. 637 lbs.
Hides	\$6.93	\$1.104	\$7.60	\$1.193
Butter fat	4.48	.713	4.09	.642
Offal	1.61	.250	1.66	.261
Total	13.02	2.073	13.35	2.096

By-products.	1903.			
	January-June.		July-December.	
	Per head.	Per cwt., d. w. 665 lbs.	Per head.	Per cwt., d. w. 674 lbs.
Hides	\$6.64	\$0.998	\$6.32	\$0.939
Butter fat	3.95	.594	2.66	.395
Offal	1.60	.241	1.46	.217
Total	12.19	1.833	10.44	1.546

1904.
January-June.

By-products.	Per head.	Per cwt., d. w. 665 lbs.
Hides	\$5.74	\$0.863
Butter fat	2.96	.445
Offal	1.48	.225
Total	10.18	1.531

Relation of Markets to Price.

The question here is the relation of markets to price. There is a considerable variation in the wholesale price of beef in different places of consumption. This depends on a variety of causes, but the two most tangible causes are the differences in freights and in quality. Besides these there are others which have doubtless a considerable influence, but which cannot be demonstrated in a precise or satisfactory manner; such, for example, are the influences of local production of beef, the possibility of substituting other commodities, such as fish, etc.; also the possible conditions of combination in the local trade.

The influence of freights on the local price of beef can be shown with more definiteness than any other, at least for most of the important markets to be compared. It may be ascertained practically by a comparison of the rates on dressed beef from Chicago to the point in question. This applies, strictly speaking, only to those points in the Northern States east of Chicago, for which the Chicago rate is the basis. These rates, which are readily ascertained, form an element of some significance in the total price of beef delivered in the local market.

Besides the freight there are other costs of transportation which enter into the local price to produce variations therein. Dressed beef must be refrigerated for transportation. If the haul is a long one the original supply of ice melts and must be replaced. Hence there is a cost of icing, which varies somewhat with the length of the haul. The exact amount of this cost cannot always be reckoned with exactness, and the packing companies generally make a more or less arbitrary allowance.

A third item of cost in transportation is shrinkage. From the time the cattle are killed to the time they are sold as meat there is a progressive shrinkage of the carcass. This is at first sudden, and then more gradual. In general the carcass is weighed three times, showing (1) warm weight, (2) shipping weight, and (3) selling weight. The "dressed cost," so called, is computed by the packers on the warm weight less a percentage, which practically gives the shipping weight. The price at the slaughterhouse is best calculated on the shipping weight; the selling price in the local beef market is generally given on the selling weight. This loss in weight between the shipping point and the market of sale is greater for the more distant than for the nearer markets. This amount may be gotten by actual weighing, or it may be assumed at a certain arbitrary amount which is roughly estimated from experience.

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PROPOSAL

OFFICE PURCHASING COMMISSARY, U. S. Army, 39 Whitehall street, New York City, N. Y., January 8, 1906.—Sealed proposals for furnishing and delivering subsistence stores in this city for the month of February, 1906, will be received at this office until 11 o'clock A. M. on January 18, 1896, and then opened. Information furnished on application. Envelopes containing bids should be marked "Proposals for Subsistence Stores, opened January 18, 1906," addressed to Lieut.-Colonel D. L. BRAINARD, S. C. G., U. S. A.

Freight, Icing and Shrinkage Allowance.

The general importance of these different factors on the local wholesale price of beef may be seen by the charges and allowances returned by a leading company for certain typical markets.

CHARGES AND ALLOWANCES FOR HUNDRED-WEIGHT FOR CERTAIN TYPICAL MARKETS.

City.	Freight charge.	Icing charge.	Shrinkage allowance.	Total.
New York.....	\$0.45	\$0.06	\$0.05	\$0.56
Philadelphia ..	.43	.06	.05	.54
Buffalo .....	.27	.035	.035	.34
Detroit .....	.20	.035	.035	.27

The differences in freight rates represent the main differences in cost of delivering beef at different localities, and are the only important causes for local price differences on account of transportation. In the examples cited they show differences as high as one-fourth of a cent per pound.

When changes have been made in the freight rates the relative amounts to different points in the North and East have remained substantially the same. The rate from Chicago to New York has been 45 cents since January 1, 1902, with the exception of nine months (April 1, 1902, to January, 1903), when it was 40 cents. From the beginning of 1898 until the beginning of 1902 it was 40 cents, except for the period from January 1, 1900, to July 29, 1901, when it was 45 cents. These variations in the freight rate were evidently of very slight influence on the selling price of beef.

Quality as a Price Factor.

A more important cause for differences in local prices is found in the quality of the beef. The only satisfactory way to get at the quality of the beef sold is to find either the live price of the cattle or the so-called "dressed cost" of the beef in question. The "dressed cost" of beef, as recorded by the packers, merely for convenience, is found by adding to the live price a certain (excessive) amount for killing, and deducting another (insufficient) amount for credits from by-products.*

The dressed cost, therefore, is not a fair representation of the real dressed cost, being much too high; so high, in fact, that it almost invariably exceeds in amount the sell-

*The method of computing dressed cost and its relation to actual prices is discussed in a later chapter.

Swift's Choice Dressed Beef

Mutton, Lamb, Veal, Pork, and Provisions

FOR SALE AT THE FOLLOWING BRANCH HOUSES

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 Gansevoort Market, 22-24 Tenth Avenue
 West Washington Market, West and Bloomfield Streets
 Thirteenth Street Market, 32-34 Tenth Avenue
 Manhattan Market, W. 35th Street and Eleventh Avenue

BROOKLYN

Williamsburg Market, 100-102 North Sixth Street
 Brooklyn Market, 182-184 Ft. Greene Place
 Atlantic Avenue Market, 74-76 Atlantic Avenue
 Ft. Greene Sheep Market, 172 Ft. Greene Place

West 39th Street Market, 668-670 West 39th Street
 Westchester Avenue Market, 769-771 Westchester Avenue
 West Harlem Market, 130th Street and Twelfth Avenue
 Eleventh Avenue Market, Eleventh Avenue, bet. 34th and 35th Streets
 Murray Hill Market, Foot East 31st Street
 East Side Slaughter House } 45th Street and First Avenue
 East Side Market }

JERSEY CITY

Wayne Street Market, Corner Wayne and Grove Streets
 Ninth Street Market, 138 Ninth Street

Swift & Company New York

Central Office, Nos. 32-34 Tenth Avenue

ing price of the beef. It affords, nevertheless, a basis for comparison of the quality and actual cost of beef, because for a given packer and at a given time the calculation is made in the same fashion, and the relative amount of the dressed cost depends chiefly on the same factors that determine the quality of beef. Practically, comparisons for quality in different markets can only be made on the basis of dressed cost, because it is very seldom that the accounts of beef sales show the live price of the cattle corresponding to the beef carcasses sold. On the other hand, it is not safe to compare the dressed cost calculation for different periods of time, be-

cause the methods of calculating the same have not been entirely uniform.

On this basis of comparison for the thirty months from January 1, 1902, to July 1, 1904, the quality of beef sold by the packers at New York is represented by a dressed cost of \$8.02 per hundred weight; Chicago, \$7.54; Philadelphia, \$7.59, and Boston, \$8.25. Of the 24 cities for which such calculations have been made the lowest is Cleveland with only \$6.90, while Boston is equaled only by the combined figures for Newark and East Orange (\$8.25). The average for the 24 cities is \$7.55. The quality of Boston beef exceeds, therefore, on this basis of comparison, the

quality of Cleveland beef by 19.6 per cent, and the quality of Boston beef exceeds the average for the cities compared by about 9.3 per cent. New York shows a quality 6.2 per cent. above the average, and Chicago is almost exactly the average.

(To be continued.)

Note.—The publication of the official report of Commissioner Garfield on his investigation of the beef industry began in the issue of The National Provisioner of March 25, 1905.

If you have a job for a good man, or if you are the man in need of a good job, you can always get what you want through The National Provisioner's "Wanted" columns. Use page 48.

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Jersey City

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Lard Refiners and General Provision Dealers

For Export and Local Trade

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New York Office, 342 Produce Exchange

THE National Provisioner NEW YORK and CHICAGO

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Correspondence on all subjects of practical interest to our readers is cordially invited.

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HEEDED THE ADVICE

From the beginning of the "yellow" newspaper and yellower political agitation against the meat packing industry The National Provisioner advised the packers who were attacked that they should not hesitate to give the public their side of the case. For they had a good case—a splendid case—and it was only necessary to state it to counteract the evil and harmful effects the "yellow" agitation has had upon the entire industry. But the packers did not choose to take the public into their confidence. They maintained an attitude of strict reserve and silence, which was held up by their opponents as a confession of guilt.

Of late the situation has changed. The public has become tired of the overdose of abuse and vilification of the meat industry which has been fed to it, and is beginning to show signs of revolt. The packers appear to have selected this opportune moment to adopt the policy of frank publicity so often urged by The National Provisioner. One of the leading weekly magazines of the country this week begins the publication of articles by J. Ogden Armour on the packinghouse and allied industries which will unquestionably be well worth reading. And as the magazine in which these articles appear has perhaps

the largest circulation of its class in the world, Mr. Armour's statements will gain wide circulation. A very interesting descriptive review of one of the greatest American packing industries also appears serially in another leading weekly illustrated publication, and it makes very attractive reading.

These are tactics that should have been followed long ago. The packers cannot help their cause more than by taking the public into their confidence.

MAXIMUM RATES

Reliable reports from Washington indicate that the Congress will speedily decide for a maximum tariff schedule to be enforced against such countries as do not grant to the United States their most-favored-nations tariff rates. However much this qualification be clad in general terms, it is generally understood that it means Germany first and last. However much also any spirit of retaliation be disowned, everybody has to admit that it will be a retaliatory measure against that country, which denounced all existing treaty relations with the United States and from March first next will charge her maximum rates against American importations.

The chairman of the Senate Committee on Foreign Relations, Senator Cullom, of Illinois, a few days ago granted an interview to a home correspondent. He emphasized that present laws could not enable this country to charge higher rates than those of the Dingley tariff, no matter how much foreign countries increase their own rates. A new law would have to be passed to alter this rather one-sided condition of affairs. And without a smile, the Senator, in a truly diplomatic fashion, added the following characteristic sentences:

"If we should take the present tariff and add 25 per cent. to it and make a maximum we would have a maximum and minimum tariff at once, but the rest of the world would naturally say it was a threat and retaliatory in its nature. We could, however, make the present 25 per cent. for the minimum, or could make the maximum 10 per cent. above our rate and the minimum 15 per cent. below it. It would be a simple matter to devise a maximum and minimum tariff which would not disturb business, which would not be an attack upon the protective principle, but which would, in the long run, give us access to the markets of Germany and France." Mark the ingenious addition of the words, "and France."

This interview was a few days later followed by the reliable advice from Washington, mentioned above. It seems that the Senator's clever distinction between a retaliatory measure of 25 per cent. increase and a friendly measure of 10 per cent. increase on the Dingley rates, touched a popular chord. If the decrease of 15 per cent. could be ac-

tually made general, it might even find support in the camp of the tariff revisionists. After all, the stand-patters commence to feel that something will have to be done to relieve American commerce from exaggerated burdens, if only the "principle of protection" can be maintained.

FARMERS' PACKING PLANTS

The promoter of a chain of farmers' grain-shipping associations in the West, who severed his connection with that scheme because of assertions made by his associates that he was using the enterprise for his own personal advantage, has now turned his attention to a plan for a series of "farmers' packing plants." He wants to make a start at Topeka, Kas., and has proposed that the citizens of that place donate land and cash to put the movement on its feet and build the first plant. To farmers he argues that the scheme would be a profitable one for its stockholders, both in disposal of their cattle and returns on the investment, while to city dwellers he holds out the promise of reduced cost of dressed and cured meats. He does not explain how, under existing market and manufacturing conditions, he can pay more for cattle and at the same time sell meat cheaper, while running a small plant which necessarily loses more or less of its by-product values.

This promoter, whose experience in the meat business is manifestly limited, believes that, because a farmers' co-operative grain-shipping scheme was a financial success, the same methods can be applied to the making and marketing of meat. The modern packinghouse man, and even the small slaughterer who makes little attempt to save his by-products, will smile at the suggested parallel of a packinghouse and a grain elevator. History has shown that farmers' co-operative mills and elevators have been precarious investments, even under careful and honest management. But marketing a carload of grain, or even turning it into flour, is simplicity itself compared to the problem of showing a profit on a carload of cattle converted into meat and by-products. Which is a truth that will forcibly impress itself upon investors who may take an interest in "farmers' co-operative packing plants" according to the grain man's plan.

There is plenty of room for expansion in the meat industry in this country. And manufacturers of packinghouse machinery nowadays cater to the small plant as well as to the large one. Small plants are being built and successfully operated in many localities. But they are not run by farmers, either as individuals or co-operatively. The "beef club" of the rural community is about the limit of the farmer's incursion of the packinghouse field.

TECHNICAL AND SCIENTIFIC

TREATING ANIMAL SINEWS.

A patent alluding to the process for treating animal sinews, preparatory for the glue factory, has been granted to Florsheim, Chicago, and consists in immersing animal sinews successively in petroleum or benzine to remove the outer fleshy animal skin; in a hardening or preserving bath, as boric acid, or alum or copper sulphate; and in an alkaline bath to remove fatty matter from the fibrous part of the sinews. The sinews are afterwards tanned and disintegrated.

UTILIZATION OF LEATHER SCRAPS.

Leather cuttings of all kinds are disintegrated, washed carefully to get rid of all foreign matter, and ground to a paste. The latter is mixed with a certain proportion of a tanning liquor and then formed into sheets. Designs are printed or embossed upon the sheets by means of a press, or between rollers, heat being used in both cases. The machines employed throughout the entire process are those used in the manufacture of paper or card board. Fr. Pat. 354,094.

LARGE OR SMALL BOILERS.

The question is frequently asked whether in case of installing a certain horse-power of boilers, say 300 horse-power, it would be more economical to have three boilers of 100 horse-power each, or two boilers of 150 horse-power each. By all means have the larger units, as it will always be found that the larger boilers have less radiation, less air leakage and better combustion than a corresponding horse-power in small units. If it is necessary to have a spare unit for cleaning, let there be another one provided of the same size.

GLUING LEATHER TO IRON.

There are constant occasions for demonstrating the value of a method for gluing leather to iron, and while there are many recipes for doing this, probably the simplest manner, and one that will answer in a majority of cases, is the following: Paint the iron with some kind of lead color, say white lead and lamp black. When dry, cover with a cement made as follows: Take the best glue, soak it in cold water until soft, then dissolve it in vinegar with a moderate heat, then add one-third of the bulk of white pine turpentine, thoroughly mix, and by means of the vinegar make it of the proper consistency to be spread with a brush, and apply it while hot; draw the leather on quickly, and press it tightly in place. If a pulley, draw the leather round tightly, lap, and clamp.

EXTRACTION OF OIL.

The publication in September last of a process of extracting oil by the use of tetrachloride of carbon, furnished by Consul-General Skinner of Marseilles, attracted attention of interested persons in this country, and has resulted in the reception by the consul-general of many inquiries. In reply to these Consul-General Skinner writes that the process described is now in actual operation at the plant of Messrs. Jules Deiss & Co., of 40, Chemin des Chartreux, Marseilles, and also in one other local mill. The process under consideration extracts all the oil from the raw material treated. In this respect it

resembles the sulphuret of carbon process which has been employed in Marseilles for years with commercial success.

The objection to the sulphuret of carbon process is the danger of explosion and the odor of the resulting oil, which is only adapted for soap making and other industrial purposes. It is claimed for the tetrachloride process that these disadvantages are largely overcome. It naturally follows, even though the process be more expensive, that both under the head of initial installment and operating expenses the high-grade product overcomes this disadvantage. Oil cake treated by this process is said to be richer, after the extraction of the oil, in ammonia and nitrogen. Up to this time at Marseilles all the cake treated in this manner has been sold for agricultural purposes.

AIR BUBBLES IN GELATIN.

The presence of minute air bubbles in cakes of commercial gelatin often imparts to them an unpleasant cloudy appearance. These minute air bubbles are the result of the rapid, continuous process of drying the sheets of gelatin by a counter current of hot air. Owing to the rapid drying a hard dry skin is formed on the outside of the cake, leaving a central layer from which the moisture escapes only with difficulty, and in which the air bubbles remain behind. Since the best qualities of gelatins dry most rapidly, the presence of these minute bubbles is, to a certain extent, an indication of superiority, and they very rarely occur in the poorer qualities of gelatin. Gelatin dried slowly in the old way is liable to be damaged by fermentation during drying; in such cases large bubbles of gas are formed in the sheets, and are a sign of bad quality.

FATTY ACID FERMENTATION PROCESS.

The production of fatty acids from fats and oils by fermentation is growing daily in importance on account of its exceedingly promising features. For an illustration of the working of the process these particulars, which are the actual results from recent experiments on a somewhat extended scale, are given: 750 pounds of cottonseed oil are mixed with 45 gallons of water and 3½ pounds of acetic acid; this mixture is heated to a temperature of 85 deg. F. A mixture of 53 pounds of castor oil seeds, decorticated and ground, is mixed thoroughly with 3 gallons of water and 4½ gallons of the oil, and this mixture is stirred into the oil and water; the whole mass is then kept mixed for twelve hours by blowing air through it, after which it is allowed to stand for another twelve hours, being given a gentle stir by hand at the end of every hour. At the end of the 24 hours the mass is heated to a temperature of 180 deg. F. in any convenient way, which stops the fermentation and at the same time makes the fatty acids that have been formed separate more freely. To assist in this effect there is added one gallon of weak sulphuric acid (1 acid and 3 water).

After two hours standing the mass will have separated into three layers—fatty acids on the top, glycerine water below, and a middle undefined layer. The glycerine water is

run away, and the whole mass left to stand for a further two hours. The middle portion is run off from the separated fat acids into another vessel, where it is mixed with 10 gallons of hot water, thoroughly stirred, and then allowed to stand for sixteen hours or so. The watery layer at the bottom, which contains some glycerine, is then run off, while the residue is mixed with a further quantity of 10 gallons of water, and again allowed to stand. The water which separates out, also the layer of fatty acids that forms on the top, are run off and mixed with the portions previously obtained. The various glycerine waters are treated to recover the glycerine, while the fatty acids are made marketable in any convenient way.

NEW PATENTS.

808,350. Apparatus for purifying and filtering water. Leon Dion, New York, N. Y., assignor to The Americus Electro-Hermetic Company, Wilkesbarre, Pa., a corporation of Arizona. The combination with a closed tank or reservoir, two chambers mounted upon it and connected with its interior, an insulating-lining arranged within one of these chambers and made up from independent sections and parts, and a filter arranged within the other of such chambers, of a group of electrodes arranged within the compartment formed by such insulating-lining, means by which a current of electricity may be supplied to these electrodes, means by which water or other liquid may be supplied to and the purified portion thereof withdrawn from the apparatus, and devices by which this flow of the water or other liquid to and from the apparatus may be controlled, and which, when operated to allow of the withdrawal of the water or other liquid from the apparatus, also allows of the flow of the water or other liquid thereto.

808,349. Refrigerator. James Dick, Montreal, Canada. A refrigerator, comprising a casing having a vertical partition dividing the interior thereof into storage and ice compartments, and communicating passages between said compartments through the said partitions, an ice-box having a perforated bottom supported intermediate of the height of the casing at the front thereof and closing a corresponding opening into the ice compartment, a removable water receptacle having a suitable faucet and closing a corresponding opening in the casing below the said ice box, and a second water receptacle contained within the aforesaid receptacle, and having a suitable faucet therefrom, the said receptacle being arranged so as to provide a space between the receptacles on three sides of the inner one.

808,481. Drying apparatus. Frank M. Schaffer, Indianapolis, Ind. In a drying apparatus, a drying-drum, means for heating said drum, sprocket wheels carried by said drum, sprocket chains meshing with the sprocket wheels on the drum and supporting said drum and also acting as the drive chains to rotate the drum, a drive-shaft with sprocket wheels thereon over which said chains are passed, and temperature-controlling means whereby the draft from the furnace to the uptake is through the drum or direct to the uptake.

STOCKS OF PROVISIONS

Following are the official board of trade reports of the stocks of provisions on hand at various centres at the close of business on December 31, 1905, as compared with stocks at the same places a year previous:

CHICAGO.

	Dec. 30, 1905.	Dec. 31, 1904.
M. Pork, new, made since Oct. 1, '05, bbls	8,232	16,379
M. Pork, made Oct. 1, '04, to Oct. 1, '05....	22,020	22,418
Other kinds of Barreled Pork, bbls.	25,066	31,568
P. S. Lard, made since Oct. 1, 1905, tcs.	6,987	33,687
P. S. Lard, made Oct. 1, '04, to Oct. 1, '05....	.....	12,909
Other kinds of Lard...	6,599	19,350
Short Rib Middles, made since Oct. 1, '05, lbs.	3,295,782	13,622,557
Short Rib Middles, mde previous to Oct. 1, '05, lbs.	5,221,350	177,328
Short Clear Middles, lbs	365,757	1,930,269
Extra Short Clear Middles, made since Oct. 1, 1905, lbs.	1,977,874	3,821,753
Extra Short Clear Middles, made previous to Oct. 1, 1905, lbs.	421,126	.....
Extra Short Rib Middles	3,440,217	3,943,366
Long Clear Middles, lbs	33,547	117,954
Dry Salted Shoulders, lbs.	405,567	632,074
Sweet Pickled Shoulders, lbs.	1,421,714	1,674,873
Sweet Pickled Hams, lbs.	28,274,850	28,776,893
Dry Salted Bellies, lbs.	18,232,054	10,367,269
Sweet Pickled Bellies, lbs.	6,746,011	6,310,429
Sw't P'd Calif. or Picnic Hams, lbs.	7,575,168	11,134,705
Sw't P'd Boston Shoulders, lbs. ....	.....	.....
Sweet Pickled Skinned Hams, lbs.	12,728,557	16,938,059
Other Cuts of Meats, lbs	9,464,591	13,237,475
Total Cut Meats, lbs.	99,604,065	112,684,995

Movement of Product.

	Dec. 1905.	Dec. 1904.
Received.		
Pork, bbls.	439	1,608
Lard, gross weight, lbs.	7,932,095	7,624,413
Meats, gross weight, lbs.	24,278,743	20,237,732
Live Hogs, No.	867,020	875,738
Dressed Hogs, No.	1,220	1,617
Shipped.		
Pork, bbls.	9,580	11,941
Lard, gross weight, lbs.	40,060,582	30,977,308
Meats, gross weight, lbs.	67,396,846	52,554,947
Live Hogs, No.	189,229	103,106
Dressed Hogs, No.	13,310	13,641
Average weight of hogs received December, 1905, 222 lbs.; December, 1904, 228 lbs.; December, 1903, 220 lbs.		

KANSAS CITY.

	Dec. 31, 1905.	Dec. 31, 1904.
Mess pork, bbls.	447	104
Other kinds pork, bbls..	1,365	1,926
P. S. lard con., tcs.	1,626	1,415
Other kinds lard, tcs..	4,038	3,093
Short rib. mid., lbs.	1,820,500	3,612,300
Short clear mid., lbs..	120,300	774,000
Extra S. C. mid., lbs..	5,960,100	4,256,000
Long clear mid., lbs..	59,800	68,500
Dry salt shoulders....	1,243,700	1,857,100
D. S. bellies, lbs.	5,267,400	2,384,400
S. P. shoulders, lbs.	467,200	527,100
S. P. hams, lbs.	14,533,200	11,863,300
S. P. bellies, lbs.	3,837,300	2,715,000

S. P. Cal. ham, lbs.	3,145,200	3,412,800
S. P. skinned hams, lbs.	3,304,500	4,165,300
Other cut meats, lbs..	4,322,700	4,489,300
Total cut meats, lbs..	44,101,900	40,125,100

Live Hogs.

	Dec., 1905.	Dec., 1904.
Received	247,673	209,199
Shipped	6,406	5,118
Driven out.....	246,852	213,577
Average weight.....	214	194

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OMAHA.

	Dec. 30, 1905.	Dec. 31, 1904.
Mess pork, bbls.	288	38
Other kinds bblld. pork.	1,761	885
P. S. lard "contract" tcs	1,333	2,984
Other kinds lard, tcs..	1,303	1,929
Short rib middles, lbs..	1,072,380	4,835,437
Short clear middles, lbs.	119,786	1,350,271
Extra S. C. middles, lbs.	2,454,584	5,242,285
Extra S. R. middles, lbs	1,822,872	550,577
Long clear middles, lbs.	13,268	71,940
D. S. shoulders, lbs.	462,599	717,784
S. P. shoulders, lbs.	322,038	485,367
S. P. hams, lbs.	5,493,582	8,424,665
D. S. bellies, lbs.	3,743,167	2,282,603
S. P. bellies, lbs.	1,562,413	1,820,193
S. P. Cal. or picnic hams, lbs.	1,761,512	3,057,541
S. P. skinned hams, lbs	4,252,444	4,939,558
Other cut meats, lbs..	1,899,517	2,404,566
Total cut meats, lbs..	24,980,162	36,182,787

Live Hogs.

	Dec., 1905.	Dec. 1904.
Received	218,588	213,883
Shipped	3,908	9,089
Driven out	218,369	204,682
Average weight	248	265

ST. JOSEPH.

	Dec. 31, 1905.	Dec. 31, 1904.
Mess Pork (new) made since Oct. 1, '04, bbls	100	139
Other kinds of Barreled Pork, bbls.	737	537
P. S. Lard in storage tanks and tierces, mde since Oct. 1, '05, tcs.	3,376	8,502
P. S. Lard, made from Oct. 1, '04 to Oct. 1, '05, tcs. ....	.....	360
Other kinds of Lard, tcs	855	2,062
Short Rib Middles and Rough or Backbone—Short Rib Middles mde since Oct. 1, '05, lbs.	832,760	4,583,443
Short Rib Middles and Rough or Backbone—Short Rib Middles made previous to Oct. 1, '05, lbs.	602,199	.....
Short Clear Middles, lbs.	213,904	757,742
Extra Short Clear Middles, made since Oct. 1, '05, lbs.	767,046	758,531

Extra Short Clear Middles, made previous to Oct. 1, '05, lbs.	824,777	.....
Extra Short Rib Middles, lbs.	938,997	1,256,256
Long Clear Middles, lbs	21,825	85,981
Dry Salted Shoulders, lbs.	416,154	1,132,076
Sw't Pickled Hams, lbs.	7,600,535	7,811,126
Sw't Pickled Shoulders, lbs.	102,100	82,770
Dry Salted Bellies, lbs.	4,466,493	1,581,938
Sw't Pickled Bellies, lbs	2,218,985	2,204,720
Sw't Pickled California or Picnic Hams, lbs.	1,439,494	1,954,170
Sweet Pickled Skinned Hams	1,722,606	3,283,880
Other Cuts of Meats, lbs.	3,532,406	2,530,574

Total weight Cuts of Meats	25,760,281	28,023,207
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Live Hogs.

	Dec., 1905.	Dec. 1904.
Received	199,787	204,055
Shipped	3,840	3,090
Driven out.....	195,964	201,000
Average weight, lbs.	218	222

—
MILWAUKEE.

	Dec. 31, 1905.	Dec. 31, 1904.
Mess pork, winter pkd. (new) bbls.	10,084	7,463
Mess pork, winter pkd., bbls. ....	.....	640
Other kinds bblld. pork..	2,757	5,888
P. S. lard, contract, tcs..	923	4,260
Other kinds lard, tcs....	935	4,465
S. R. middles, lbs.	1,982,527	3,812,866
Extra S. R. middles, lbs.	180,269	278,811
Extra S. C. middles, lbs..	170,265	53,825
L. C. middles, lbs.	96,387	157,297
D. S. shoulders, lbs.	27,963	60,976
S. P. shoulders, lbs.	324,499	421,263
S. P. hams, lbs.	577,000	405,550
D. S. bellies, lbs.	3,128,400	5,821,300
S. P. bellies, lbs.	1,023,459	1,023,427
S. P. Cal. or picnic hams, lbs.	717,210	727,850
Total	3,706,190	5,085,526

ARMOUR'S PRIZE TEAM TO IOWA.

Word has been received at Ames, Iowa, that the first prize six-in-hand team of geldings at the recent International are to be sent to the Agricultural College, Iowa, by Armour & Company for the horse judging in the "short course." The Percheron geldings were admittedly the best horses shown at the recent show, landing first prizes in single geldings, four-in-hand and six-in-hand. Two of the horses are veterans in city work, having proved their superior quality and endurance by five years of service on the Chicago streets. The others are newer horses, but all are American bred. They will furnish the best of illustrations as to the type of geldings wanted at high prices on the city markets.

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ICE AND REFRIGERATION

NEW CORPORATIONS.

The A. L. Brewer Dairy Company has been incorporated at Salt Lake City, Utah, with a capital stock of \$50,000, by H. L. Brewer, W. H. Williams, W. F. Rudiger and others. An extensive creamery business will be conducted.

Wilson Dairy Company has been formed at Atlantic City, N. J., with a capital stock of \$50,000. Incorporators: Thomas K. Wilson, Afric D. Wilson and Eugene G. Swinghammer. The company is to take over the concern of Thomas K. Wilson, 8 South New York avenue, Atlantic City.

The Merchants' Ice & Cold Storage Company has been incorporated at Louisville, Ky., with a capital stock of \$1,500,000 to purchase the property of the Merchants' Refrigerating Company. The incorporators, as given, are: V. I. Witherspoon, August Ropke, Henry M. Coons, clerks in the Fidelity Trust Company, and W. T. Hale and J. J. Morris, attorneys. These men are said to hold nominal portions of stock only and the real incorporators of the company are said to be members of the Merchants' Refrigerating Company, which controls the ice situation in Louisville with the exception of two plants. It is stated that Charles W. Inman, president of the Merchants' Refrigerating Company; Samuel Ouerbacker, Henry Vogt and A. R. Schwartz will head the new concern. It is also understood to be the intention of the company to make extensive improvements, including the construction of an ice plant in the neighborhood of Seventh and Oak streets.

American Ice Company, of New Orleans, has been formed with a capital stock of \$12,000. Officers: E. E. Hanmer, president; N. G. McCall, vice-president; P. T. Simpson, secretary and treasurer.

Edgewood Cheese & Dairy Company has been incorporated at Edgewood, Ill.; capital \$4,000; incorporators: F. J. Ervin, F. V. Wilson, J. E. Hunter.

Maple Grove Elgin Butter Company has been formed at Layton Corners, Mich.; capital stock, \$4,000.

Blaine County Creamery Company has been formed at Hailey, Idaho, with a capital stock of \$5,000. The directors are John Wonderweik, J. W. Ravencroft, M. W. Keyes, William Walker, all of Hailey, and J. E. Calhoun, of Bellevue.

Franklin Refrigerator Company, Harriestown, N. Y., has been formed with a capital of \$30,000. Directors: F. E. Kendall, Kate E. Kendall and William Minshall, Saranac Lake.

ICE NOTES.

The Yoakum Ice Company will build a cold storage plant at Yoakum, Tex.

The Chester, Pa., Ice Company will put in a new 35-ton ice machine.

The ice plant of Demuth, Haggerty & Winslow, at Alva, O. T., was destroyed by fire last week, with a loss of \$15,000.

Jacob C. Rustman, president of the Jefferson Ice Company, of Chicago, committed suicide in his office last week while temporarily insane.

Lucas Bros. will complete a new 12-ton ice plant at Lock Haven, Pa., to be in operation by April 1.



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**SEE PAGE 48
FOR BARGAINS**



A 10-ton ice plant will be put in at Kutztown, Pa., by Brause & Sharadin.

The newly-incorporated Commerce Ice Company, of Greenville, S. C., will erect a 35-ton ice plant at that point.

The Bretney Ice Company, of Marion, Ind., has changed its name to the West Side Ice Company.

The stockholders of the American Ice Company have re-elected the following directors for the ensuing year: Edward T. Bedford, Charles T. Barney, John A. Sleicher, John Greenough, Guy B. Johnson, Charles I. Hudson, John R. Bennett, William G. Crenshaw, Jr., Robert M. Thompson, Miles M. O'Brien, and Wesley M. Oley.

An ice house belonging to the American Ice Company at Perryville, Md., was destroyed by fire last week.

The Warwick Valley Farmers' Milk Association creamery at Warwick, N. Y., was burned last week, with a loss of \$10,000.

THE PLATE AND CAN SYSTEMS.

By Edgar Penny.*

Preliminary to selection, the principal features of each system should be understood. This paper will therefore describe each without going into technical details of construction and mechanical variations employed for making ice by the "plate" system or the several modifications of apparatus employed in the "can" system. The title of your paper, assigned by your program committee, and the limited time allowed for reading precludes this, admitting only a general explanation of the essential features.

The "plate" system derives its name from the practice of freezing water against the exterior face of a metal plate maintained by means of mechanical refrigeration at a temperature below 32 degrees F.

The "can" system freezes water in open top metal cans, generally rectangular in shape. These are exposed to freezing temperature, either by partial immersion in a mechanically cooled non-freezing liquid bath, in a properly cooled room or in the open air, when below 32 degrees F.

A distinctive feature of peculiar importance is that when plate ice is frozen from one side only it is an exact substitute of natural ice both in keeping and transparent qualities.

An elementary difference of vital importance in plate and can is the result of radical departures in process. Plate ice having its growth in thickness from one side only, the exterior face being always in contact with free water, the formation of ice proceeding from the freezing plate outward certain undesirable properties of the water held in solution or mechanically suspended or other than chemically fixed, are separated and rejected by the slowly freezing water and pass into and are taken up by the residual or unfrozen water, which, at the termination of the freezing period, is drained off, the tanks then being refilled with fresh water. In waters heavily charged with carbonates, etc., as, for instance, lime, clear crystal ice can be obtained by a

*Read before the American Society of Refrigerating Engineers.

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HUDSON, N. Y.

GENERAL OFFICE
HUDSON, NEW YORK

WOOD'S ICE TOOLS.

GIFFORD'S ELEVATORS AND CONVEYORS

See Exhibit, Section J, 103, at National Dairy Show, Coliseum, Chicago, February 15-24, 1906.

SEND FOR CATALOGUES



slower rate of freezing, thus giving time for elimination, providing a larger percentage of residual water to take up the offscour without becoming over saturated or a more frequent change during the stated run.

Contrast with the "can" system in which all the water in the rectangular can is frozen, the formation of ice proceeds simultaneously from the four sides and bottom in a peculiar prismatic formation, the impurities rejected by the water finally being frozen in the center of the mass. To dispense with this center core makes necessary the various and sundry complications connected with the "can" system and limits the possibility of economic production compared with the "plate" system in which all water fit to drink can be used without distillation, ordinary filtering being all that is required to produce crystal ice. The same quality of water when frozen in cans reveals in a surprisingly unexpected manner to sight, smell and taste, visions, odoriferous and unsavory. The problem therefore in the "can" system is to disassociate dirt and water before the moulds are filled, based on the theory that pure water will make pure ice, and so it will—but how to purify water on the large scale required in the modern can ice factory is a vexatious question. The following is a recipe in use by some experts: Boil the water! Some undesirable properties doubtless vacate when served with such a dispossession notice, but others cling to their tenement, in fact, invite harsher treatment. Boil harder! Boil longer! Boil into steam! Remove the tenement, leaving the hardened tenant behind. Distill—Filter—Re-boil—Filter again—Purify—Store, forecool and fill from the bottom of the can slowly to prevent reassociation. Then freeze, melt, smell and taste the core.

But distillation for the "can" system necessitates steam boilers and the number of pounds of water to be boiled into steam must equal pounds of ice required plus the waste, say 25 per cent. additional.

Water wheels, gas, oil or other cheap motive power are available for driving plate ice plants, but with the "can" system when pure ice for family use is a necessity, such powers cannot be utilized, as the inevitable steam boiler for producing distilled water must be installed and it would be complication worse confounded not to use the boiler steam required for distillation to drive the pumps, ice machinery, etc., on its way to the distiller, take the energy out of the steam by doing this work and have as many pounds of steam left for ice.

The principal elements in the selection of "plate" system and "can" system contrasted: **QUALITY OF ICE**—Both systems under intelligent management will produce ice of good quality, but the "can" system depends upon a complicated arrangement of distilling and filtering apparatus which permits rapid deterioration in quality if not carefully watched and kept in effective working condition.

STORED ICE—Plate ice possesses the desirable quality of keeping in storage equally well as natural ice without resort to mechanical refrigeration to prevent rotting and crumbling. This good point permits the manufacture of plate ice to be carried on during the entire year, if suitable, well insulated ice houses are provided. Can ice, on the contrary, from its lack of homogeneity due to formation or peculiar miter-like joining of the four sides and



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bottom and centre core does not lend itself favorably to storage. To prevent disintegration and to preserve a good quality of clear ice, the ice store rooms must be maintained by mechanical refrigeration at a point equally as low as the freezing tank where frozen.

CHEAP POWER—Water, gas, electricity or any cheap motive power can be used for producing plate ice, but when distilled water is required, the "can" system must use steam, therefore the economy of the distilling steam boiler is the only factor of fuel cost.

WATER—Where water is highly impregnated with lime, etc., or gaseous products capable of vaporization and condensation, the "plate" system can be used if operated at a slow rate of freezing, as, for instance, sea water can be frozen on the "plate" system while very opaque and difficult to handle on the "can" system.

INVESTMENT OR FIRST COST—For producing ice 12 to 14 inches thick, the investment is greater in the "plate" than in the "can" system, where steam is used, by 33 to 75 per cent. This is due largely to the increased area of buildings required, high pressure compound condensing steam engines, power traveling cranes, expensive construction of freezing tanks and cells, etc., or, in other words, in the "plate" system, the highest priced and most economical type of labor saving and steam engines can be used with a resulting increase or return from investment.

INVESTMENT RETURNS, OPERATIVE ECONOMY—The comparative economy in pounds of ice made to one pound of coal burned is for the "plate" system, with highest class special equipment, 14 pounds of ice to one of coal; or, with average high grade equipment, 10½ to 1. The average "can" system used about 1 pound of coal to 6 pounds of ice.

(Concluded next week.)

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Savannah, Benton Transfer Co.
Jacksonville, Atlantic Coast Line Ave., B. B. W. Acosta.
New Orleans, Magastine & Common Sts., Finlay, Dicks & Co., Ltd.
Cleveland, The Cleveland Storage Co.
Cincinnati, Pan-Handle Storage Warehouse.
Chicago, 18 N. Clark St., F. O. Schapper.
Milwaukee, 136 W. Water St., Central Warehouse.
Indianapolis, Central Transfer & Storage Co.
Louisville, Louisville Public Warehouse Co.
Kansas City, 717 Delaware St., O. A. Brown.
Liverpool, 19 South John St., P. R. McQuinn & Son.

REVISED FEDERAL FOOD BILL.

(Continued from page 17.)

Marine Hospital Service, instead of in the Bureau of Chemistry of the Department of Agriculture. The Division of Chemistry of the Hygienic Laboratory of the Public Health and Marine Hospital Service, is by character and name the proper place for such work, and in this contention we are supported by a large majority of the practical food chemists of the United States, both in official and manufacturing positions. We also believe the objection to the Bureau of Chemistry of the Department of Agriculture having to do with the enforcement of a food law, to be unanimous, almost, on the part of the food manufacturers of the United States.

Fourth—We believe that the power to ruin any man's name and business by officially and publicly condemning his business and his brands of food, on the mere finding of a food chemist or commissioner, and without giving him his "day in court," is so fundamentally and grossly unfair and wrong that it needs no comment to condemn it. We believe the safeguard embodied in Section 9 of this bill should be incorporated in every food law in the land.

Fifth—The color question and the preservative question are two of the leading issues in the food problem, and we believe that in this bill we have met these issues and treated them fairly and squarely; and if the bill passes in its present form, a manufacturer will easily understand whether he can use a color and what he must do if he does use one; and he will also understand whether he can use a preservative, and if so, how much of it; and also how he must label his goods if he does use a preservative. The manufacturers of certain lines of food must use preservatives, and we ask that the preservatives commonly used, indeed necessary, in the proper preservation of different foods be recognized as a necessary part of the process, and permissible only in sufficient quantities to preserve the food.

Since the public has become more or less misled and alarmed on this subject, we believe the presence of these preservatives should be

made known, and those who are in doubt about their use may then use them or let them alone. We believe, and in fact we know, that the demand for laws prohibiting the use of preservatives has come from a few food officials and not from the public, nor from the physicians of the country, who should, in the very nature of things, be the guardians of the public health and the first to discover danger in the use of any substance.

Sixth—No arbitrary power is granted under this bill. The concentration of arbitrary power in individual hands is contrary to the principles of "a government of the people" and dangerous to any government.

Yours very truly,

J. A. YERINGTON.

Chairman Board of Directors.

AN ADVERTISING INNOVATION.

The creation of a General Advertising Department for the New York Central Lines, and the placing in charge of that department the veteran railroad advertiser, George H. Daniels, who has been for nearly twenty years the General Passenger Agent of the New York Central Railroad, marks an era in the history of advertising in America.

The New York Central Lines are the first great system to create an advertising department which covers all the railways in their system, and the far-reaching consequences of such a movement cannot be appreciated at first sight, but this action on the part of the management of these lines emphasizes the value of advertising generally, and forces the conclusion of a strong belief in the efficacy of railroad advertising in particular.

Some idea of the importance of this new department can be had when it is understood that it will control the general advertising in America and in foreign countries of the

New York Central, Boston and Albany, Lake Shore and Michigan Southern, Michigan Central, Cleveland, Cincinnati, Chicago and St. Louis, Rutland, and Lake Erie and Western railways and their leased lines, having their western terminals at Chicago, St. Louis and Cincinnati and their eastern terminals at New York, Boston and Montreal, and embracing more than twelve thousand miles of the best equipped railways in the world.

Mr. Daniels has for many years been a firm believer in newspaper and magazine advertising, and, therefore, the organization of the General Advertising Department of the New York Central Lines is of importance to every legitimate publication in America, daily, weekly or monthly.

In an address before the New York State Press Association a few years ago, Mr. Daniels made the point that the railroad is the advance agent of commerce and that railway advertising had been of immense value to American manufacturers in calling the attention of the whole world to the excellent work done by our inventors and mechanics, as illustrated in the Empire State Express, the Twentieth Century Limited, and other great trains that connect the east with the west; the average foreigner arguing that the men who are able to turn out such machines must be able to build almost anything, and that the farm machinery, and all kinds of industrial machinery made in America, must be of the very best quality. Railroad advertising has certainly been the means of bringing thousands of men here from foreign countries to investigate our manufactures and has wonderfully increased our foreign commerce.



The Buffalo Refrigerating Machine Co.

refers the prospective purchaser of refrigerating machinery to its large number of long running installations, each a monument of efficiency.

Write for list of users, also illustrated monthly bulletins.

THE BUFFALO REFRIGERATING MACHINE CO.

WORKS: HARRISON, N. J. MAIN OFFICE: 126 LIBERTY ST., NEW YORK



PROVISIONS AND LARD

WEEKLY REVIEW

All articles under this head are quoted by the bbl. except lard, which is quoted by the cwt. in tcs., pork and beef by the bbl. or tierce, and hogs by the cwt.

Continued Liberal Shipments — Extremely Small Stocks—Packing Sold Up Close—Market Held Down with Difficulty—The Selling Interests Should Have a Decided Advantage—Temper of Speculation Becoming Stronger—Larger but Still Disappointing in Extent Hog Receipts.

It has been clear for some weeks that the hog products markets could easily go higher from the statistical positions and rate of consumption in Europe and in this country, if these factors alone were to be considered as the market influences. The doubt has been, and is, that a prolonged or sharply advancing tendency of prices would be an outcome for the near future, and because of the possibilities of hog supplies. It would be improbable that the products markets would have for any length of time a markedly bullish course of prices in the longer period of most active marketing of the hog supplies which is now setting in.

There is no question but that a moderate advance in the prices of the products can take place at any time in the near future, while that if the outside speculators should force the market that it could go materially higher, besides that these outside speculators would have a good basis for the bullish movement from the fact there is an enormous consumption of the products, while that there is a closely sold up packing and generally small stocks at all of the packing centres.

But while these outside speculators are getting a little nervous to take hold of the market, and that their trading is a little stronger, yet it does not look probable that there will be general and sufficiently active demands from them at once to crowd the market up ahead of the time for a closer ab-

sorption of the hog supplies at the packing points.

There is little question but that the hog products are now, from the rate of supplies and requirements of Europe and this country, in more tempting position than they have been in years, for more extensive speculative dealings, while it looks now as if with the cash stuff taken out of packers' hands from the incoming hog supplies, for a few weeks more, as freely as now looks probable they will be taken, that at some time in the winter months more sensitive conditions are likely to prevail from speculative sources, particularly in consideration of the merits of the market from its supply and demand basis, than appears probable for a few days more.

And yet, it would be possible to start a more bullish movement at once as is indicated from the cash position.

We do not think that the large extent of the business at this time in the products had been fully counted upon by the packing sources in the fall months, neither that the hog supplies would be of the somewhat restricted order they have been in for some weeks.

There is little question but that the hog supplies are back in the country freely, but that they are not marketed so, and that they are held back in some degree with the intention of having prices supported for them, but, as well, as held back, because there has been some disposition to feed the hogs freely (and the weather has been favorable for holding and feeding), in order to get all of the money possible from the hog supply. Feedstuffs are generally in an abundant degree to be had.

It is because that the hog supply must

soon show in larger volume at the packing points that it is doubtful if the products markets will be allowed a free rein at once for sharply higher prices, however moderately higher they may be.

But, indeed, as has been the case, at times this week, the packers have been able to buy hogs at slightly easier prices on some one day's larger than ordinary supply of them, and the products markets have sympathized in a spasmodic way with them.

No doubt there will be occasional further reactions to lower prices for the hogs and products of a temporary order in the near future if the hog supplies at the packing points prove as large as it is expected they will, and notwithstanding the other encouraging features for better prices of the products.

It may be said that essentially the packing is taken up steadily through contract deliveries with the foreigners, and on the large home demands, and that there is a good deal of competition for the hog supply from the cutters East and West, with a very large, as well, fresh meat trade, and by which the hog supply would have to be materially larger than it has been latterly if much success is had in easing up prices for the hogs.

Although the prices of hogs and the products are substantially higher than they were a year ago, yet there is now a fair trading difference in values between the two, and by which it would appear that the packers are getting an ordinary profit from the products.

In consideration, however, of the enormous quantity of the products that have been sold ahead and the steady further full cash demands it does not look probable that the stocks of the products can accumulate very materially at the packing points in the next

THE W. J. WILCOX

LARD AND REFINING COMPANY

NEW YORK
OFFICES: 27 Beaver Street

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few weeks, and that it is improbable that even by the spring months that there will be a stock of the products of a burdensome order, in consideration of the at present seeming wants through to that time of particularly European consumers, and notwithstanding the new German tariff which goes into effect March 1.

Indeed, the German tariff to take effect March 1 is in no sense prohibitive of importations of lard, as it is increased only to equal $\frac{1}{4}$ c. per pound; but it is of a more decided order against importations of meats. Nevertheless, it is more a question as to whether the continental markets' hog supplies will prove, this side of the spring months, sufficient to tide them along on the large consumptive demands for the products, rather than these foreign markets would object to paying perhaps about $\frac{1}{4}$ c. per pound more for the meats that would be figured upon through the new tariff. Moreover, it is well understood that if foreign markets need supplies of the hog products that an increased tariff upon importations of them unless it be made against all countries, and which has not as yet been a development, does not interfere, except to give a little more trouble to the importers and exporters, for importations by the foreign markets from all sources.

So called prohibitive tariffs have been had before in Germany, but we have never in former years observed that they restricted importations there except in a direct way.

Our opinion is that as Germany has been buying meats and lard for several weeks in an exceptional liberal degree, not only because of the new tariff to come into force, but on account as well, and chiefly so, from its moderate supply of and high prices of live stock, and that while it has accumulated in supply largely, the products, and will have still larger accumulations of them by the middle of February, by which it will be in a position to be very different in buying in this country for a while, yet that at a later period of the season it will again become an ordinary in volume buyer.

The fact, however, that all of the continental markets have been large buyers of feedstuffs in this country for several months shows that the continental farming sections have a fairly liberal live stock supply to feed, whatever reports there are to the contrary, but that it will not be ready to market in the near future.

It is quite likely, of course, that by March Europe will have more of its home supplies than probable in the nearer future, and that its cattle and hog prices may be upon a relatively more reasonable basis than they are at present; nevertheless, it seems now that Europe must have for some time to come more than the ordinary amount of the products from this country.

As the lard and cottonseed oil situations are in a degree interlocked, the fact that the production of cottonseed oil is this season about 600,000 barrels less than that of the previous year, and that its prices are now materially higher than they were a little while since, while that there are further bullish views held for it means some influence upon the lard market.

The exports last week were 6,291 bbls. pork against 2,295 bbls. corresponding week last year, 39,772 bbls. from November 1, and 31,176 bbls. from November 1, 1904.

Of meats the exports have been 17,911,125 lbs. for last week, 11,573,719 lbs. corresponding week last year, 138,504,644 lbs. from November 1, and 112,517,381 lbs. from November 1, 1904.

Of lard the exports have been 18,635,235 lbs. for last week, 10,121,327 lbs. corresponding week last year, 165,016,440 lbs. from November and 105,253,988 lbs. from November 1, 1904.

In New York there is a moderate export business at firm prices. Sales of 350 bbls. mess at \$14.50@14.75; 200 bbls. short clear at \$14.75@17; 200 bbls. family at \$15.75@16. Western steam lard is scarce and strong; quoted at \$7.80@7.95; city steam lard is

firm at \$7.62 $\frac{1}{2}$. Compound lard is active, and tends higher; car lots quoted at 5 $\frac{1}{2}$ @6c. In city meats, bellies are at steady prices and wanted moderately. Sales of 35,000 lbs. pickled bellies, 14 lbs. ave., at 8@8 $\frac{1}{4}$ c.; 12 lbs. ave. at 8 $\frac{1}{4}$ @8 $\frac{1}{2}$ c., and 10 lbs. ave. at 8 $\frac{1}{2}$ @8 $\frac{1}{2}$ c., with smoking at 9c. Pickled shoulders quoted at 7c.

BEEF.—There is a good, firm market, with a fairly active distributing business. City extra India mess, tcs., \$17.50@18.50; barreled mess, at \$8.50@9.50; do., packet, \$10.50@11; family, \$12.50@13.

BALTIMORE FERTILIZER MARKET.

(Special Letter to The National Provisioner from Thomas H. White & Co.)

Baltimore, Md., Jan. 11.—The market for ammoniates the past week has been quiet and the volume of business reported small. Buyers seem disposed to wait until the last minute before purchasing at the present prices, and while producers generally seem disposed to consider offers, their views are rather firm. We quote:

Ground tankage, 8 and 20, \$2.30 and 10 per unit f. o. b. Chicago; unground tankage, 8 $\frac{1}{2}$ and 25, \$2.10 and 10 per unit f. o. b. Chicago; ground tankage, 10 and 20, \$2.25 and 10 per unit f. o. b. Chicago; ground tankage, 11 and 15, \$2.30 and 10 per unit f. o. b. Chicago; ground concentrated tankage, \$2.20@2.22 $\frac{1}{2}$ per unit f. o. b. Chicago; ground blood, \$2.50 per unit f. o. b. Chicago; hoof meal, \$2.40@2.45 per unit f. o. b. Chicago; crushed tankage, 9 and 20 (futures), \$2.62 $\frac{1}{2}$ and 10, \$2.65 and 10 c. i. f. basis Baltimore.

Nitrate of Soda.—Spot, \$2.17 $\frac{1}{2}$ per 100 lbs.; January-April, \$2.17 $\frac{1}{2}$ per 100 lbs.; May-July, \$2.15 per 100 lbs.; July-December, \$2.16 $\frac{1}{4}$ per 100 lbs.; entire year, 1906, \$2.16 $\frac{1}{4}$ per 100 lbs.; entire year, 1907, \$2.07 $\frac{1}{2}$ per 100 lbs.

OLEO AND NEUTRAL LARD.

So far in the New Year both the oleo and neutral lard markets have been extremely quiet, Europe buying from hand to mouth and hoping that the high prices which are prevailing now will be reduced, since most articles have gone higher than the churners can afford to pay. The small stocks of oleo and neutral in Europe keep the prices prohibitive at the moment, but if there should be any accumulation of these goods here or on the other side prices are likely to be somewhat lower.

Cottonseed oil continues to rule very strong and is likely to remain dear for some time to come.

EXPORTS OF PROVISIONS

Exports of hog products for the week ended January 6, 1906, with comparative tables:

	PORK, BARRELS.		
	Week Jan. 6, 1906.	Week Jan. 7, 1905.	Nov. 1 to Jan. 6, 1906.
United Kingdom	1,160	1,235	9,554
Continent	1,120	5	6,374
South and Cen. Am.	528	67	3,366
West Indies	2,670	2,072	16,595
Br. No. Am. Col.	813	3,000	5,440
Other countries	—	16	433
Totals	6,291	8,395	39,772

BACON AND HAMS, POUNDS.

United Kingdom	11,245,755	9,839,463	107,053,809
Continent	6,323,781	4,939,546	86,739,057
South and Cen. Am.	42,559	19,150	692,359
West Indies	296,000	351,700	2,805,196
Br. No. Am. Col.	3,000	—	21,000
Other countries	—	22,200	751,930
Totals	17,911,125	11,573,719	138,504,644

LARD, POUNDS.

United Kingdom	4,609,174	4,332,646	63,297,302
Continent	12,932,806	4,939,546	86,739,057
South and Cen. Am.	328,550	86,955	4,905,530
West Indies	720,320	739,400	9,354,926
Br. No. Am. Col.	17,775	3,000	145,905
Other countries	26,550	19,280	543,960
Totals	18,635,235	10,121,327	165,016,440

RECAPITULATION OF WEEK'S EXPORTS.

From—	Pork, barrels.	Bacon & Hams, lbs.	Lard, lbs.
New York	4,382	7,580,700	8,001,790
Boston	905	3,787,825	1,536,792
Portland, Me.	—	1,049,400	76,500
Philadelphia	476	1,185,744	1,369,521
Baltimore	296	3,035,856	3,045,902
New Orleans	532	245,750	1,730,030
St. John, N. B.	—	1,025,850	782,450
Galveston	—	—	1,181,250
Totals	6,291	17,911,125	18,635,235

COMPARATIVE SUMMARY.

	Nov. 1, 1905, to Jan. 6, 1906.	Nov. 1, 1905, to Jan. 7, 1905.	Increase.
Pork, lbs.	7,954,400	6,235,200	1,719,200
Bacon & hams, lbs.	138,504,644	112,517,381	25,987,263
Lard, lbs.	165,016,440	105,253,988	59,762,452

OCEAN FREIGHTS.

	Liverpool.	Glasgow.	Hamburg.
	Per Ton.	Per Ton.	Per 100.
Canned meats	12/6	17/6	24c.
Oil cake	10/-	12/6	14c.
Bacon	12/6	17/6	24c.
Lard, tierces	12/6	17/6	24c.
Cheese	25/-	25/-	24c.
Butter	25/-	30/-	24c.
Tallow	12/6	17/6	24c.
Pork, per barrel	2/-	3/-	24c.
Beef, per tierce	2/6	3/6	24c.

EXPORTS SHOWN BY STEAMERS.

Following were the exports of commodities from New York to foreign ports for the week ending Saturday, January 6, 1906, as shown by Lunham & Moore's statement:

Steamer.	Destination.	Oil Cake.	Cheese.	Bacon.	Butter.	Beef.		Pork.	Lard.	
						Tcs. & Bbls.			Tcs. & Pkgs.	
1Canada, Liverpool		233	2674	575	250			85	548	1375
*St. Paul, Southampton		350	1,000	100					150	50
*Minneapolis, London		1100	185	8730		25		50	480	4480
Chicago City, Bristol			30					25		500
Benedick, Newcastle		1540	96		25	185			25	5452
Bluecher, Hamburg			60		270	1083		250	2070	2153
Rhein, Bremen			195			903				1650
Kaiser Wil der Grosse, Bremen			20		195	150			60	575
Tudent, Rotterdam		2681								
Noordam, Rotterdam		11250		905		35			2008	9253
4Ronian, Antwerp		3291		354		9			718	3240
St. Andrew, Antwerp		16,490		250					640	3800
6Zeeland, Antwerp		9,205		1084		82		124	1127	12156
Oscar II., Baltic		800		235	410		303	60	1120	1150
7La Touraine, Havre		2925								150
Peninsular, Mediterranean							10			
Mashona, South Africa							25			433
Totals		46711	3223	7088	9815	831	2709	504	7846	43417
Last week		30398	1376	11227	9567	1097	2113	1217	6382	55209
Same time in 1905		37520	10538	12142	734	973	432	1005	7845	60017
Last year's tallow, 285 bbls. 1.—100 tes. tallow. 4.—19 tes. tallow. 6.—231 tes. tallow. 7.—250 bbls. tallow. *Cargoes estimated by steamship companies.										

TALLOW, STEARINE, GREASE and SOAP

WEEKLY REVIEW

TALLOW.—It has been easy to advance prices on any increase of the before steady demands. There is a clean advance of $\frac{1}{4}$ c. for city hhd. tallow for the week, under some trading for export, and which left the market for it at 5c. bid and $5\frac{1}{4}$ c. asked.

The strength of the market had been secure for some time before this week on the fact that the productions were being closely taken up by the home soapmakers and compound makers, and when the added urgent demand came along for 300 hhds. city for export the rise in prices resulted, while it cleaned up the accumulations here of that class of goods.

The home soapmakers had for two or three weeks been anticipating stronger market conditions for January, in view then of the general fat positions and the close buying to productions; and as far as possible they were buying ahead.

The manufactured goods business is a very satisfactory one for this time of the year, and it has been brisk practically all through the fall months, while that it has a very encouraging look on the prosperous labor conditions of the country. Therefore the tallow productions have not only been absorbed, but there is a fair prospect that this disposition to buy will continue through at least the winter months.

Besides, as a strengthening feature to the entire beef fat position is the situation of the hog products market and its effect in materially enlarging the compound lard consumption, by which the use of beef fats by the compound makers is in that degree improved, and whose buying is in competition with the soapmakers as an added source of confidence to the tallow market.

The pure lard market is in good shape for a substantial advance in its prices after the held back hog supplies are more freely had by the packers. Indeed, it is very difficult to

keep the lard market down at any time, even now, on the small stock of the lard and the enormous wants of it by Europe. Besides that these European demands are not likely to be fairly well satisfied for the next two months, while it is doubtful if any material supply of the lard will have accumulated at the packing points through what is called the winter hog packing. The conditions, then, are favorable for all fats, whatever may be felt, just now, that the market has been advanced too quickly and that there may be temporary reactions from the current higher prices.

It is also considered that the cotton oil prices have had latterly a substantial advance, based, in part, on speculation, but largely because of a materially less production of the oil than was had the year before and the increased wants of it as compared with the previous season, by the compound makers.

We think that there will be less cotton oil used this season than was the case last year by the soapmakers and more grease, however much larger than then the other home demands are likely to be, particularly those by the compound makers, bakers and for edible purposes for the cotton oil.

The foreign advices concerning tallow have been more encouraging for strong prices for the week. At the London sale on Wednesday only 700 casks were offered, and 500 casks were sold, with the prices 6d. higher.

Of New York city hogshead tallow sales of 100 hhds. for export at $4\frac{1}{4}$ c., and 200 hhds. for export at 5c., and the weekly contract deliveries of it will be made at 5c.

New York city in tierces is nominally $5\frac{1}{4}$ c. Edible tallow is quoted at 6c.

Country made tallow has been arriving a little more freely, and has been rather promptly bought up at the improved prices. Sales for the week, 348,000 pounds at $4\frac{1}{4}$ c. to $5\frac{1}{4}$ c. for good to prime, and some choice kettle lots at more money.

OLEO STEARINE.—There had been a few days since sales at the Missouri River points at $7\frac{1}{2}$ c., but since the tone is stronger, and Chicago quotes at $7\frac{1}{2}$ c. and New York at $7\frac{1}{4}$ c. There has, however, been very little business, since however, larger the compound lard trading is and at better prices, yet the decidedly increased cost of cotton oil makes the compound makers reluctant to pay better prices for the stearine, and they are compelled to draw more largely than ordinarily upon their accumulated stocks of the stearine. The prospects are more favorable to the

selling interests because of the look of the pure lard market and the probabilities of an even larger business in the compound lard. Sales are 150,000 pounds in New York at $7\frac{1}{4}$ c.

LARD STEARINE.—It is hard to buy except at better prices, on account of the increased cost of lard. About $8\frac{1}{2}$ @ $8\frac{3}{4}$ c. quoted.

GREASE.—About $\frac{1}{4}$ c. advance in prices made for the week, with enlarged home demand, some export trading and higher cotton oil and tallow markets. Yellow, at $3\frac{7}{8}$ @ $4\frac{1}{8}$ c.; bone, at $4\frac{1}{8}$ @ $4\frac{1}{4}$ c.; choice, at $4\frac{1}{2}$ @ $4\frac{3}{4}$ c.; house, at $4\frac{1}{4}$ @ $4\frac{1}{2}$ c.; choice white, at $5\frac{1}{2}$ @ $5\frac{1}{4}$ c. "B" white, at 5c.

GREASE STEARINE.—Can hardly be bought except at $1\frac{1}{4}$ c. higher prices on account of the higher cost of the grease. Moderate supplies. Yellow at $4\frac{1}{4}$ c., white at $5\frac{1}{4}$ c.

CORN OIL.—More money is asked, by reason of the higher cotton oil and linseed prices. Demands are increasing, especially from home sources. Car lots quoted at \$3.80@3.85, and jobbing quantities to \$4.10.

OLEO OIL.—Consumption is of a brisk order, especially in the foreign markets. Firm tone to the market well sustained. New York quotes: Choice, $10\frac{1}{4}$ c.; prime, $9\frac{1}{4}$ c.; low grades, $7\frac{3}{4}$ c. At Rotterdam quotations are 63 florins.

NEATSFOOT OIL.—Demands are enlarging and the market situation is more in favor of sellers. Quotations: 20 test at 88c.; 40 test at 60c.; 30 test at 80c.; prime at 48c.; dark at 40c.

LARD OIL.—There are more general demands from the manufacturing interests, with a firmer line of prices. Prime quoted at 63@65c.

COCOANUT OIL.—Consumption is using up quickly the surplus supply had latterly and the market is taking on a better tone. Ceylon quoted at $7\frac{1}{2}$ @ $7\frac{1}{4}$ c., and January to March shipments at 7c. Ceylon, spot, at $6\frac{1}{2}$ @ $6\frac{1}{4}$ c., and January to March shipments at $6\frac{1}{4}$ c.

PALM OIL.—Trading is in small lots on the moderate supply. Red quoted at $5\frac{1}{4}$ c., Lagos at $6\frac{1}{4}$ @ $6\frac{1}{2}$ c.

COTTONSEED STEARINE.—Is at irregular prices, according to quality, with steadily well sold up supplies. Quoted at 41 @ 42 c. per gallon.

RIESER MOVES HIS OFFICES.

A. L. Rieser, the broker in oils, greases, etc., has moved his offices from his former location on the second floor of the Produce Exchange Annex, to new and more commodious quarters on Floor C, rooms 18 and 19, where he will hereafter receive his customers. These offices are on the same floor as the Exchange, and very convenient to the "floor."

NATIONAL EXPORT & COMMISSION CO.

80 Broad Street New York City

Manufacturers of High Grade

Acidless Tallow Oil

TALLOW STEARINE

JOB ELBERT & CO., Inc.

68 Broad Street, New York

COTTON OIL

Oleo Stearine

TALLOW

Tallow, Grease, Stearine
Cocoanut Oil, Palm Oil
Olive Oil Foots
and

All Soap Materials

WELCH, HOLME & CLARK CO.

383 WEST STREET, NEW YORK

INSOLUBLE CHROME GELATINE.

The composition of bichromated gelatine which has been made insoluble by adding salts of the sesquioxide of chromium, is brought out by two prominent chemists at Paris, and they treat also of the theory of the action of light upon gelatine containing metallic chromates. The conclusions of the different experiments which they made in this field may be summed up as follows:

First, when gelatine is treated with salts of chromium, it seems to fix the chromium directly, seeing that its properties undergo profound modifications, and that the chromium can not be eliminated after numerous washings with boiling water. Second, the acid of the chromium salt, although it is retained with energy by the gelatine, does not seem to enter at all into the phenomena we observe where the gelatine becomes insoluble, seeing that we can eliminate the acid without modifying the properties of the insoluble gelatine. We may suppose that it is owing to the functions of the gelatine, which are both basic and acid, that it can retain at the same time the oxide of chromium and the acid which is combined with it.

Third, a given weight of gelatine will fix a maximum constant quantity of sesquioxide of chromium comprised between 3.2 and 3.5 per cent. of the weight of the gelatine, regardless of the nature of the chromium salt which is used for making the gelatine insoluble. Thus it seems that we have to deal with a well-defined compound in this case. Again, seeing that it is easily dissociated, the insoluble gelatine is rather an addition compound than a veritable com-

bination. Lastly, the dissociation of the bichromized gelatine by successive treatments of boiling water can be prevented either by washing the treated gelatine in the proper way with ammonia water or again by adding to the gelatine (before putting in the chromic salt), the theoretical quantity of ammonia needed to saturate the acid of the salt.—*Sci. Amer.*

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WEEKLY REVIEW

THE NATIONAL PROVISIONER is an official organ of the Interstate Cottonseed Crushers' Association, and the official organ of the Oil Mill Superintendents' Association of the United States.

Further Advanced Prices—Based Upon the Crude Oil Position—More Active Demand from Compound Makers—Moderately Increased Export Demand.

It is not this week so much a "short" market, or as against the "shorts" as it had been before for two or three weeks to stimulate prices and by which they are substantially advanced for this week, as that the rising prices this week have had more the merits of the reduced oil production for the season, to which we have before called attention, and from necessary more active demand from the compound makers for supplies of the oil by reason of an active business in compound lard. There is also a moderately increased export business to give more encouragement to the holding interests.

Back of it all are the gradually advancing prices for crude oil, based upon the increased call for supplies from people who will start them at once into consumption, with the fact that the mills through their reduced season's productions, are better able to control prices for supplies. And, as we said last week, the prices of the crude oil at the mills are forcing the prices of the refined at the seaboard rather than that the seaboard is able to dictate the prices of the crude oil.

But while the statistical features in the smaller productions and increased consumption, together with the advanced prices at the mills are more this week than before as moving features for the better prices, yet it must not be supposed that the "short" interest is, as yet, anywhere near eliminated. The occasional demands from the "shorts," but who, however, are fighting shy in demands to cover, sometimes stimulates the position.

While the mills are paying on an average \$18@20 per ton for seed, oftener \$20, and in some sections as much as \$21, yet they stand a good chance now of getting substantial profits out of their productions. It could,

of course, be said that with the high prices for seed there would be free selling of it, and that productions by that much would be enlarged. But this could be the case only in the Southeast.

With crude oil in tanks hard to buy anywhere over the South under 26c., and in Texas 26c. bid, at this writing, while that the prices of cottonseed meal are high, and that it is almost impossible to get enough of the meal to meet the large foreign and home demands for it, the highly comfortable situation of the producers over prices is apparent.

The New Orleans price for the cottonseed meal is now \$31 per long ton. Georgia, which had been quoting \$25 per short ton for it, has since sold at \$27.

The people in our Eastern cities who have needed a fair supply of the meal for fertilizing purposes, have had to pay up to \$31.50@32 per ton for it delivered to them.

The advance in the prices of cottonseed oil for the week have been about one cent per gallon, to this writing and our reports, as they are appended, and which bring the market conditions up to the close of Friday will show such other changes as happen, as the market is a little fitful as to prices, although having a substantial undertone.

There is no question, however, but that the feeling over the future is a very confident one, whatever fluctuations in prices happen, and that although there may be relaxations, spasmodically, from speculative conditions, yet that the cotton oil market is not now so much a situation of speculation for support as before this season, but that it is resting more than ordinarily on the features, as enumerated, of production and actual demands for supplies.

The speculation is, of course, an active one, but it is moved more by the meritable situations of supplies and the general sta-

tistical exhibit and not that speculators have been able to, as they have done before latterly, influence the market against its other indicated developments.

There is reason for the improved moderately so, export demand for the cotton oil for the week, in the steadily rising prices for linseed in Europe, and the fact that some of the foreign markets by their long time holding off in buying the cotton oil had become, some of them, short of supplies of it, while that most of the foreign markets are beginning to feel that as there is a materially shortened cotton oil production as compared with that of the previous year, that there is seemingly little hope of their buying in the near future at least at sharply lower prices, and particularly as they realize that our home wants of the oil will be larger than those of the previous year in consideration of the present and prospective pure lard market and the consequent enlarged demands for compound lard, and the necessary use of the cotton oil by the compound makers, bakers, etc.

Calcutta linseed shows a further advance in London for the week of about 1s. 6d. The linseed oil is up there again over 1s., and it would look even more probable than it did last week that unless the prices of cotton oil are put materially higher than they are at present that the export business in this country in the soap grades would be materially more than had been supposed possible for the season, although likely decidedly less than that of the previous year, yet that more of the edible oils, or at least quite as much, would be taken this season as was taken to the previous year.

While the cotton oil market received additional strength, as it did following the Census Bureau's report of the amount of cotton ginned, yet the report was only confirmatory of views that had been held by the trade of the extent of the cotton crop.

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 "APEX"—Prime Summer Yellow Oil
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 "NONPAREIL"—Choice Winter Yellow Oil
 "WHITE LILY"—Prime Summer White Oil
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 Our "SNOWFLAKE" is unequalled for cooking purposes

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The Census Bureau's report of the cotton ginned implies, in our opinion, about a 10,500,000 bale cotton crop, which are the figures we estimated upon the crop news some weeks since, although there is here and there a trade source which thinks that the statement implies a 10,750,000 bale cotton crop, and others that it does not mean more than a 10,250,000 bale crop. But the great majority of the traders now figure out a 10,500,000 bale crop, or thereabouts from the ginner's figures.

The amount of cotton by the report ginned to January 1 was 9,721,000 bales, not including linters, including 1,669,817 bales in Georgia, 2,231,835 bales in Texas, 1,175,985 bales in Alabama, 1,030,912 bales in Mississippi, 1,075,826 bales in South Carolina, etc.

The Western and other compounds makers have been buying the cotton oil at an advance to 31c. for the bleaching grade, in tanks, in New York, and after they had paid 29½@30c. in Chicago for it, made bids of 30c.

There is a large business in compound lard by reason of the necessity of shipping most of the pure lard produced to Europe, on contracts made ahead, and the fact that Germany especially will get steady, liberal deliveries of the pure lard up to March 1, and which would mean shipments hence up to, say the middle of February, while the new German tariff goes into effect March 1. Concerning the effect of the German tariff allusion is made in a specific way, in our provision market review.

There is a prospect then of the business in the compound lard, keeping up to its present liberal proportions for a few weeks more.

The impression prevails that the stocks of the pure lard will be of a moderate order for the remainder of the winter season and for the early part of the spring months, since after all, there must be a good, full business in the lard at the later period of the season, or at least this side of April, and because of the moderate livestock supplies of Europe with their high prices; therefore the belief is that the compound lard business for essentially this season will be of extraordinarily liberal proportions and the home consumption of the cotton oil proportionately augmented. At a later period of the year, into the spring months, the livestock supply of Europe to be marketed should be of fair proportions.

Besides the prices of the compound lard are very attractive to consumers, since they have been only moderately advanced, despite the late rather sharp rise in the prices of cottonseed oil.

In the moderately increased sales to the foreign markets this week has been some light quantities to the English markets, and which has proved a little bit of a surprise.

The edible grades have been shipped freely on old sales, chiefly to the Rotterdam market, and when the market in this country becomes more settled it is expected that Rotterdam will be a further large buyer, since the price of oleo oil keeps up well.

Whatever reactions from strong prices that have happened this week in New York have been occasioned more by efforts to bear the market, partly by "shorts," and yet that with any spasmodic reactions in prices in New York they have uninfluenced the South as affecting its views over prices, and because the South has confidence from the increased demands for the crude oil, while that

it has been in some degree a buyer of the refined in New York for future deliveries and as, in a measure, against its prices of crude oil.

New York Transactions.

Last Saturday (6th) the market stood: Prime yellow, January, 32@32½c.; February, 32½@32¾c.; March, 32½@32¾c.; May, 32¾@33c.; July, 33@33¾c. Sales, 100 bbls. May, 32½c.; 600 bbls., 32¾c.

On Monday the market opened strong and before the close was up about one cent per gallon, more particularly on May and July, with large buying of May. Sales were: 400 bbls. January, 32½c.; 200 bbls., 33¼c.; 4,300 bbls., May, 32¾c.; 1,800 bbls., 33¼c.; 3,000 bbls., 33½c.; 5,200 bbls., 33¾c.; 300 bbls., July, 33½c.; 500 bbls., 34c.; "call" prices: January, 32@33c. and 32¾@33c.; February, 32@33c. and 32¾@33½c.; March 32½@33c. and 33@33½c.; May, 32½@33c. and 33½@33½c.; July 33¼@33¾c. and 33¾@34¼c.

On Tuesday the market opened weaker and lower, but closed firmer. Sales, 100 bbls., January, 32½c.; 100 bbls., 33c.; 200 bbls., 32¾c.; 700 bbls., May, 32¾c.; 6,200 bbls., 33c.; 500 bbls., 33¼c.; 500 bbls., March, 32¾c., 100 bbls. July, 33¾c.; 1,800 bbls., 33½c. "Call" prices: January, 32¾@33c., and 32½@33c.; February, 32½@33½c., and 32¾@33c.; March, 32¾@33½c., and 32¾@32¾c.; May, 32¾@33½c., and 33@32½c.; July, 33¼@33¾c., and 33½@33¾c.

On Wednesday the market was somewhat fitful, but kept up very well. Sales 100 bbls. January, 33c.; 500 bbls. March, 33c.; 4,600 bbls. May, 33½c.; 600 bbls., May, 33¼c.; 1,400 bbls. July, 34c.; 1,600 bbls. July, 34¼c. "Call" prices: January, 33@34c.; February, 32¾@33½c., and 33@34c.; March, 32¾@33½c., and 33@33½c.; May, 33@33½c., and 33¼@33¾c.; July, 33¾@34c., and 34¼@34½c.

On Thursday the market opened slacker, but soon became strong, with increased speculative bidding. Sales, 1,200; March, 33¼c.; 1,200 May, 33½c.; 500 do., 33¾c.; 300 July, 34c. "Call" prices: January at 32½@33½c., and 32¾@34c.; February at 32½@33½c., and 32¾@33¾c.; March at 32½@33½c., and 33¼@33½c.; May at 33¼@33½c., and 33½@33¾c.; July at 33¾@34¼c., and 34@34½c.

(Continued on page 42.)

Compound Makers' Demands.

It was supposed this week that the prices of compound lard would be further advanced ½c. on the increased cost of cotton oil, and the usual buyers of the compounds have furnished liberal orders for it in advance; and this, in connection with the feeling over prices has led to an increased home business in cotton oil, both in crude at the mills and the bleaching grades as held there and elsewhere. Sales had been 40 tanks bleaching, in Chicago, at 29½@30c., in tanks, closing 30c. bid, and 35 tanks in New York at 31c.

Export Demands.

The export demands have taken about 6,800 bbls. for the week to some little extent for Trieste at 33½@34c., for spot oil of prime yellow, and partly at 35c. for edible grades. The relatively high prices for spot oil of prime yellow, or to 34c., on sales, and closing at 34c. bid and 34½c. asked, has been due, chiefly, to the urgent needs for shipment to Trieste, and the last consignments

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to that port to anticipate the March 1 tariff, will be on the steamers leaving here January 16. The steamers go out full with the oil.

At the Mills.

While the prices are now at about 26c. for crude in tanks, as asked, with 26c. bid, Texas, there have been sales for the week of about 55 tanks crude, covering all sections at the South, at 25@26c.

Seed Supplies.

The seed supplies are steadily falling off, and very strong prices prevail for them, with \$18@21, chiefly \$20 paid.

COTTONSEED OIL SITUATION.

(Special Letter to The National Provisioner from Aspegren & Co.)

New York, Jan. 11.—Short covering has continued during the past week, but not on the same large scale as the previous week. Still, buying orders for this purpose have been in excess of the selling orders and the market has advanced about a cent a gallon. Crude oil holdings have been largely reduced during the week with enormous sales to the refiners and packers.

Another feature of importance is the increasing export demand which has taken place during the past two days and which has come from ports that have held off for quite a long while. Same is a matter of considerable interest. Any heavy buying orders from these quarters would no doubt create considerable excitement. In the meantime the market remains steady.

Produce Exchange prices at 3:30 o'clock today were as follows: Prime summer yellow cottonseed oil, January, 33c. bid, 33½c. asked; February, 33c. bid, 33½c. asked; March, 33c. bid, 33½c. asked; May, 33½c. bid, 33½c. asked; July, 34c. bid, 34½c. asked. We further quote: Prime winter yellow cottonseed oil, 35c.; prime summer white cottonseed oil, 35½c.; Hull quotation of cottonseed oil, 18s. 10½d.

SOUTHERN MARKETS

Memphis.

(Special Wire to The National Provisioner.)

Memphis, Jan. 11.—Prime crude oil firm at 27½ to 28c.; prime meal higher at 27 to 27½c.; loose hulls steady at \$5.50.

Kansas City.

(Special Wire to The National Provisioner.)

Kansas City, Mo., Jan. 11.—Crude offerings scarce this week; 26c. paid in Southwest and still bid. Bleachable yellow sold at 30c. at Chicago, and same was bid for more; sellers asking higher prices.

Atlanta.

(Special Wire to The National Provisioner.)

Atlanta, Ga., Jan. 11.—Crude oil f. o. b. mills, 26c.; sales light. Prime meal, \$25.50

f. o. b. Hulls, \$5.50 loose at Atlanta; trade dull.

Dallas.

(Special Wire to The National Provisioner.)

Dallas, Tex., Jan. 11.—Market very quiet this week, with light sales; 26c. freely bid for oil; meal, \$30 to \$30.50 f. o. b. Galveston.

CABLE MARKETS

Trieste.

(By Cable to The National Provisioner.)

Trieste, Jan. 12.—Cottonseed oil buying continues on a good scale. Sales of prime summer yellow at 55¼ francs, and of winter oil at 57½ francs.

Rotterdam.

(By Cable to The National Provisioner.)

Rotterdam, Jan. 12.—Cottonseed oil has a good demand. Sales of off oil at 24½ florins, prime summer yellow at 25 florins, and butter oil at 27 florins.

Antwerp.

(By Cable to The National Provisioner.)

Antwerp, Jan. 12.—Cottonseed oil market is dull, but prices steadily firming up. Sales of off oil at 50½ francs.

Hamburg.

(By Cable to The National Provisioner.)

Hamburg, Jan. 12.—Cottonseed oil market is advancing rapidly, on account of scarcity of offers. Sales of off oil at 41½ marks, prime summer yellow at 42½ do., butter oil 45 do.

Marseilles.

(By Cable to The National Provisioner.)

Marseilles, Jan. 12.—Cottonseed oil has a good demand for high grades. Sales of winter oil at 57½ francs; prime summer yellow rather neglected at 51½ francs.

Liverpool.

(By Cable to The National Provisioner.)

Liverpool, Jan. 12.—Cottonseed oil market is firm and sales at high prices. Sales of prime summer yellow at 21s. 9d.; off oil at 21s., c.i.f. English ports.

COTTON OIL MEETING.

A meeting of the members of the cottonseed oil trade in New York will be held on Thursday, Jan. 11, at 3:30 P. M., in the manager's room of the Produce Exchange, to consider the advisability of the adoption of a commission rule.

COTTONSEED OIL EXPORT

Exports of cottonseed oil for the week ending Jan. 11, 1906, for the period since September 1, 1905, and for the similar period in 1905, were as follows:

Port.	From New York.	
	For week. 1, 1906.	Same period 1905.
	Bbls.	Bbls.
Aalesund, Norway.....	100	—
Aberdeen, Scotland.....	80	50
Acajutla, Salvador.....	8	25
Adelaide, Australia.....	—	53
Alexandria, Egypt.....	2,309	1,233
Algiers, Algeria.....	1,920	3,302
Algoa Bay, Cape Colony.....	238	9
Ancona, Italy.....	150	250
Antigua, West Indies.....	559	—
Antwerp, Belgium.....	150	4,800
Asuncion, Venezuela.....	49	—
Auckland, New Zealand.....	46	36
Bahia, Brazil.....	239	—
Barbados, West Indies.....	389	336
Barcelona, Spain.....	—	—
Belfast, Ireland.....	108	—
Bergen, Norway.....	190	226
Berlin, Germany.....	8	—
Bone, Algeria.....	81	360
Bordeaux, France.....	2,270	1,670
Braila, Roumania.....	175	—
Bremen, Germany.....	150	—
Bridgetown, West Indies.....	36	288
Bristol, England.....	—	10
Buenos Ayres, Argentine Repub.	1,108	986
Calbarien, Cuba.....	6	54
Callao, Peru.....	49	—
Cairo, Egypt.....	90	—
Campeche.....	42	42
Cape Town, Cape Colony.....	35	961
Cardenas, Cuba.....	—	36
Cardiff, Wales.....	—	80
Cartagena, Colombia.....	—	19
Cayenne, French Guiana.....	121	51
Christiansia, Norway.....	930	331
Christiansand, Norway.....	50	25
Cienfuegos, Cuba.....	80	165
Ciudad Bolivar, Venezuela.....	—	34
Colon, Panama.....	332	206
Conakry, Africa.....	112	36
Copenhagen, Denmark.....	645	1,900
Corinto, Nicaragua.....	71	101
Curacao, Leeward Islands.....	—	25
Dantzig, Germany.....	1,500	1,500
Delagoa Bay, East Africa.....	9	21
Demerara, British Guiana.....	676	421
Drontheim, Norway.....	75	—
Dublin, Ireland.....	—	76
Dundee, Scotland.....	65	—
Dunkirk, France.....	660	300
East London, Cape Colony.....	—	115
Fiume, Austria.....	200	366
Fort de France, West Indies.....	—	509
Freemantle, Australia.....	—	58
Galatz, Roumania.....	—	1,215
Genoa, Italy.....	150	5,000
Georgetown, British Guiana.....	—	10
Gibraltar, Spain.....	27	1,357
Glasgow, Scotland.....	2,962	1,550
Gothenberg, Sweden.....	—	386
Guadeloupe, West Indies.....	—	567
Guantanamo, Cuba.....	—	1,304
Guayaquil, Ecuador.....	—	22
Half Jack.....	—	50
Hamburg, Germany.....	1,600	2,247
Havana, Cuba.....	1,240	581
Havre, France.....	8,749	9,374
Helsingborg, Sweden.....	25	28
Helsingfors, Finland.....	—	50
Hong Kong, China.....	—	34
Hull, England.....	—	85
Kingsdon, West Indies.....	80	1,250
Kobe, Japan.....	1,594	1,144
Konigsberg, Germany.....	—	500
Kustendil, Roumania.....	—	75
La Guaira, Venezuela.....	—	50
Leghorn, Italy.....	457	3,537
Leth, Scotland.....	—	70
Lisbon, Spain.....	—	20

Liverpool, England	—	2,662	2,422
London, England	100	2,395	895
Macoris, San Domingo	—	413	996
Malmö, Norway	—	21	15
Malta, Island of	—	1,069	958
Manchester, England	—	637	255
Mansour, Brazil	—	15	—
Mansuillo, Cuba	—	29	—
Maracaibo, Venezuela	—	7	8
Marcellus, France	—	17,705	16,778
Martinique, West Indies	391	2,271	739
Massowah, Eritret	—	259	19
Mantanzas, West Indies	—	11	10
Melbourne, Australia	—	194	281
Montego Bay, West Indies	—	13	58
Montevideo, Uruguay	—	1,208	2,295
Naples, Italy	—	422	2,180
Newcastle, England	—	—	10
Neuritas	—	5	—
Oran, Algeria	—	505	2,231
Pernambuco, Brazil	—	290	—
Phillippeville, Algeria	—	—	183
Pointe a Pitre, West Indies	—	692	—
Port Antonio, Jamaica	—	70	94
Port au Prince, West Indies	9	25	47
Port Cabello, Venezuela	—	—	7
Port Limon, Costa Rica	4	38	18
Port Louis, Mauritius	—	8	—
Port Natal, Cape Colony	—	—	170
Port of Spain, West Indies	—	—	25
Port Said, Egypt	—	—	340
Progreso, Mexico	—	140	19
Puerto Plata, San Domingo	—	—	30
Rio Grande do Sul, Brazil	—	9	—
Rio Janeiro, Brazil	—	1,950	1,858
Rotterdam, Holland	100	4,655	4,780
St. Kitts, West Indies	—	49	855
St. Thomas, West Indies	8	11	8
San Domingo City, San Domingo	105	544	87
Santiago, Cuba	12	115	24
Santos, Brazil	—	177	758
Sekondi	—	10	—
Shanghai, China	—	—	19
Sierra Leone, Africa	—	—	21
Singapore, India	—	—	76
Southampton, England	—	325	499
Stavanger, Norway	—	194	300
Stettin, Germany	—	1,795	3,025
Stockholm, Sweden	—	260	390
Swansea, Wales	—	25	—
Sydney, Australia	—	25	478
Tangier, Morocco	—	565	150
Trieste, Austria	9,005	44,323	12,982
Trinidad, Island of	—	150	731
Tunis, Algeria	—	—	16
Turk's Island, West Indies	—	9	—
Valetta, Maltese Island	—	—	715
Valparaiso, Chile	88	574	1,007
Velle, Denmark	—	—	200
Venice, Italy	25	4,399	13,252
Vera Cruz, Mexico	—	185	46
Wellington, New Zealand	8	37	70
Total	11,117	142,621	128,246

From New Orleans.

Antwerp, Belgium	—	4,800	3,400
Belfast, Ireland	—	100	450
Bremen, Germany	100	2,570	1,248
Copenhagen, Denmark	—	1,350	955
Genoa, Italy	—	—	301
Glasgow, Scotland	—	1,175	2,258
Hamburg, Germany	1,080	11,210	6,438
Havana, Cuba	25	452	471
Havre, France	75	2,065	1,010
Hull, England	—	—	390
Liverpool, England	—	4,832	2,775
London, England	—	3,700	2,580
Manchester, England	—	600	250
Marcellus, France	—	2,200	6,675
Rotterdam, Holland	—	29,217	41,060
Tampico, Mexico	—	423	—
Trieste, Austria	—	3,050	10,050
Vera Cruz, Mexico	100	100	—
Total	1,380	67,824	80,251

From Galveston.

Antwerp, Belgium	—	—	2,680
Hamburg, Germany	—	3,000	680
Rotterdam, Holland	—	18,723	31,759
Tampico, Mexico	—	3,400	—
Trieste, Austria	—	7,400	90
Vera Cruz, Mexico	—	—	6,534
Total	—	32,853	41,743

From Baltimore.

Antwerp, Belgium	75	475	330
Bremen, Germany	100	295	120
Bremerhaven, Germany	—	—	260
Copenhagen, Denmark	—	—	805
Glasgow, Scotland	—	170	—
Hamburg, Germany	—	2,060	100
Havre, France	—	—	200
Rotterdam, Holland	—	400	2,850
Stettin, Germany	—	—	530
Total	175	3,403	5,195

From Philadelphia.

Hamburg, Germany	—	110	—
Rotterdam, Holland	—	200	6,160
Total	—	310	6,160

From Savannah.

Bremen, Germany	—	3,510	—
Christiania, Norway	—	433	—
Gothenburg, Sweden	—	1,067	—
Hamburg, Germany	—	1,806	—
Havre, France	560	1,433	—
London, England	—	375	—
Rotterdam, Holland	272	11,956	—
Stavanger, Norway	—	197	—
Trieste	321	321	—
Total	1,153	21,098	—

From Newport News.

Hamburg, Germany	—	1,430	5,355
Liverpool, England	—	—	1,040
London, England	50	900	145
Rotterdam, Holland	—	2,789	4,773
Total	50	5,209	11,273

From all Other Ports.

Canada	180	5,006	4,264
Germany	8	8	—
Guatemala	—	9	—
Honduras	—	5	—
Liverpool, England	—	—	21
Mexico	—	2	—
Salvador	—	59	—
Total	188	5,089	4,285

Recapitulation.

From New York	11,117	142,620	128,246
From New Orleans	1,380	67,824	80,251
From Galveston	—	32,583	41,743
From Baltimore	175	3,403	5,195
From Philadelphia	—	310	6,160
From Savannah	1,153	21,098	—
From Newport News	50	5,209	11,273
From all other ports	188	5,089	4,285
Total	14,953	278,138	277,153

*Not given.

SOME DE LA VERGNE SALES.

Recent sales of refrigerating and ice making machinery by the De La Vergne Machine Co., New York, are as follows:

Anheuser-Busch Brewing Association, Norfolk, Va., increasing capacity of ice-making expansion side twelve tons.

Trinity Cotton Oil Co., Dallas, Tex., 50-ton ice-making plant, complete.

Washington Terminal Company, Washington, D. C.—Two 50-ton refrigerating machines, together with necessary ammonia condensers and connections, brine piping for boxes and 20-ton plate freezing system. To be installed in Union passenger station, Washington, D. C.

Chas. Weisbecker's market, New York city, two 150 h. p. "Hornsby-Akroyd" oil engines for general power and lighting purposes. Will also furnish driving power to refrigerating machine of complete new installation of 40-ton refrigeration plant.

Standard Oil Co., Bayonne works, Bayonne, N. J., 200-ton refrigerating machine complete with ammonia condensers of same capacity.

Hetzler Brothers, Columbia, Mo., 60-ton refrigerating plant with 15-ton distilling and freezing system, and direct expansion piping for cellars containing 60,000 cubic feet of space.

Armstrong Packing Co., Dallas, Tex., 150-ton refrigerating machine, ammonia condensers, etc.

Crown Brewing Co., Cincinnati, O., 75-ton refrigerating plant, complete with ammonia condensers, etc.

F. D. Radeke Brewing Co., Kankakee, Ill., 75-ton refrigerating compression side complete. Eastman Kodak Co., Rochester, N. Y., air-drying apparatus, consisting of 14 direct ex-

pansion coolers, etc., to be used for manufacturing purposes.

Genesee Brewing Co., Rochester, N. Y., 75-ton battery of ammonia condensers.

Crescent City Stock Yards & Slaughter House Co., New Orleans, La., 250-ton battery of ammonia condensers.

Carnegie Steel Co., Pittsburg, Pa., 30-ton battery of ammonia condensers.

Central Consumers Co., Louisville, Ky., 160-ton battery of ammonia condensers.

Huyler's, New York city, 60-ton double pipe brine cooling system.

Sperry & Barnes Co., New Haven, Conn., several thousand feet of 2-inch direct expansion piping.

Massachusetts Breweries Co., American Branch, Boston, Mass., 115-ton battery of ammonia condensers.

Beadlestone & Woertz, New York city, additional ammonia condensers.

Anheuser-Busch Brewing Association, Washington, D. C., 35-ton battery of ammonia condensers.

Henry Weinhard Brewery, Portland, Ore., 250-ton refrigerating machine, together with ammonia condensers of same capacity and 20-ton ice plant.

Huebner Toledo Breweries Co., Toledo, O., ammonia condensers of 50 tons capacity.

Kingan & Co., Ltd., Indianapolis, Ind., 160-ton battery of ammonia condensers.

Cy. Gousett, New York city, direct expansion piping for chocolate cooling rooms.

Wm. Haddon, prop. Quincy Electric & Ice Plant, Quincy, Fla., freezing side of 4-ton ice plant, ammonia condensers, water forecooler, etc.

Wellston Brewing & Ice Co., Wellston, O., Worcester, Mass., two 75-ton refrigerating machines, together with condensing side of same capacity.

Ropkins & Co., New Haven, Conn., 50-ton refrigerating machine, complete.

Wellston Brewing & Ice Co., Wellston, O., increasing capacity of present refrigerating machine by substitution of double-acting compressors in place of single acting.

Consumers Ice Co., Erie, Pa., direct expansion cooling coils for 25-ton brine tank.

Robe & Bro., New York city, increasing capacity of present 35-ton single acting refrigerating machine to 55 tons by substitution of double acting compressors.

JULIAN FIELD
Broker in Cottonseed Products,
Fuller's Earth and Fer-
tilizing Materials
ATLANTA, GA.

JULIUS DAVIDSON
Broker and Commission Merchant
PACKING HOUSE PRODUCTS
COTTONSEED OIL
302 and 303 Kemper Bldg. Kansas City, Mo.

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Merchandise Brokers
—AND DEALERS IN—
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COTTON OIL & FIBRE CO.

Producers of

Crude and Refined Cotton Seed Oil, Cotton Seed Cake,
Hulls, Mixed Hulls, Linters, Etc. Prime Cotton Seed Meal "Cofco" Brand.

Samples free on request Net 100 lbs. fully decorticated.

GUARANTEED ANALYSIS:

Ammonia, not less than 8.50 per cent.

Nitrogen, not less than 7 per cent.

Protein, not less than 43 per cent.

Crude Oil and Fat, not less than 9 to 10 per cent.

Land Title Bldg.
Philadelphia, Pa.

HIDES AND SKINS

(Daily Hide and Leather Market.)

Chicago.

PACKER HIDES.—The market continues quiet and easy on native steers, but branded hides are steady and Western sole leather tanners are picking up the few of these there are unsold at unchanged rates. One prominent packer has made a sale of a car of late November and December St. Louis native steers, at 15½c. f.o.b. St. Louis, which probably go to a tanner located in that city. December native steers continue virtually offered at 15½c. Chicago butt buyers are holding off with the idea that they will be able to operate at a considerably less price later on. No further sales are reported of Texas and these are steady at 14½c. for heavy and light, and 13¾c. for extremes. Butt brands are unchanged at 14c. and Colorados at 13¾c. Branded cows are still sold away ahead and continue nominally quotable at 13¾c. Native cows are rather easy for late December and January salting. It is rumored that a sale of 10,000 all weight native cows has been made mostly of January salting ahead, and it is understood that 14½c. was shaded, though details regarding the transaction are as yet lacking. Native bulls continue scarce and packers talk 11¾c. to 12c. flat for grubs for January salting, mostly ahead, but no sales have been made.

COUNTRY HIDES.—The market again shows a somewhat weaker tone, although few sales are effected on which to base quotations. Dealers the first part of the week, endeavored to bolster up the market somewhat on the strength of some inquiries they had received, but the fact that most buyers can secure cows at Eastern points at 13¾c. makes attempts fruitless to secure any more here. There are not many buffs being offered by Chicago dealers, as they claim that there is excessive competition in buying at country points, owing to the operations of a large sole and a large upper leather concern. Buffs are obtainable here to-day at 13¼c., but no sales have been effected. Last sales of all No. 2 buffs were at 12¼c. Two cars of heavy cows have been sold at 13¾c., and there is no call for regular Western extremes at anything over 13¼c. Some prime Eastern extremes are being held in Ohio at 13¾c. to 13¾c., but no further sales are reported made at these prices. Heavy steers continue quiet and nominal, quotable at 13¾c. to 14c. for ordinary lots. Bull hides are still rather slow, owing to the high prices asked for them. One car of 75 lb. and under bulls is held at 12c., but remains unsold. A small car of bulls has been sold at 11¼c. se-

lected, but this does not represent the market, as the car consisted of odd lots of rejects left after stags and spreaders were picked out.

CALFSKINS.—The market continues quiet and rather easy, owing to the poor demand for the finished product. A car of Chicago city skins was reported sold by Lister a while ago at 16c., but it is learned that the skins in reality only brought 15½c. The car of outside city skins sold at 16c. was from Pittsburg and was probably the takeoff of a local packer there, as it is difficult to secure 15½c. for ordinary outside cities and most bids are not over 15¼c. Country skins are quiet at 15¼c. to 15½c., with some lots picked up at outside points at as low as 15c. Kips are easy at 14c.

SHEEPSKINS.—Local packers continue to operate in outside markets and supplies here are kept closely cleaned up. Chicago sheep are held at \$1.95 to \$2, and lambs at \$1.75 to \$1.80, but no sales have been reported at better than the inside prices. Extra heavy packer sheep range from \$2.05 to \$2.15. Country pelts are hardly as firm and most sales are from \$1.20 to \$1.50, though extra choice stock will bring up to \$1.75.

HORSE HIDES.—No. 1 selection, \$4.10.

New York.

DRY HIDES.—About 1,000 Maracaibos have been sold on the unchanged basis of 23¼c. Stocks are very light with practically no offerings at present.

CITY SLAUGHTER HIDES.—No sales are reported and the market is dull. Two of the largest packers here have together about 6,000 December native steers still unsold, and a New York and New Jersey packer has about 2,000 native steers running back into last October salting. Packers are nominally asking 15¼c. for December and January native steers, but some buyers believe that they may eventually get these hides at about 1c. under this figure.

COUNTRY HIDES AND CALFSKINS.—The market on hides continues dull and rather weak. Offerings are growing larger every day, and there are a number of car lots of New York State and Pennsylvania 40 to 60 lb. cows that are offered at 13¼c. selected and remain unsold. Another car of New York State cows was offered here to-day at 12¾c. flat, but was not taken. Buyers are figuring on securing cows in car lots at 12¼c. flat, but the only sales so far at this figure have been small lots of cows with heavy bulls included. Calfskins show little change. A lot of 2,000 to 2,500 choice country skins has been sold here from a New England point at \$1.25, \$1.55 and \$1.85 selected. For inferior small lots most buyers are bidding about 5c. under these prices.

Leather Conditions.

There is a slight improvement in the demand for both sole and upper. Calfskins, however, are dull and easy, particularly box calf, of which sales have been made here and in

Boston at concessions at ½c. per ft.; local tanners have sold 3 cars of tannery run "Newport" Texas oak sides of 25 to 26 lbs., average at 29c. One jobber here took 2 cars and another jobber 1 car. A Boston tanner is offering 4,000 light weight union backs of good tannage at 36c., 34c. and 32c., despite claims of other tanners of sales at 2c. higher. Local tanners report selling a lot of 2,500 No. 2, 9 to 12 lb., scoured oak backs, at 38c., but no sales are claimed of No. 1 light backs at the asking price of 40c. Local tanners are now turning out scoured oak backs from 2 yards that formerly tanned dry hide hemlock. A Pennsylvania scoured oak tanner is selling his light backs here at 39c. for No. 1. Offal keeps as active and firm as ever with stocks here closely cleaned up. Local oak harness tanners are making small sales at 37c. for No. 1 and 26c. for B.

THE 1906 CALENDARS.

The usual crop of New Year's calendars, artistic, comic, or merely useful, is now in process of distribution. The designers have aimed at attractiveness, and have generally succeeded. Nobody in the meat or allied trades need want for knowing the day of the week or month during 1906.

The Armour and Swift calendars lead the procession, as usual. The best artists of the country are called upon for designs for these editions de luxe, and the results are so successful that ways have to be devised to stem the avalanche of requests for calendars, rather than to distribute them. Other packers, too, have issued attractive souvenirs, and all are greatly in demand.

The calendar sent out by the big butcher supply house, Hellriegel & Co., of Buffalo, N. Y., is one of the popular issues, with its figure of the jolly butcher and the bacon hog in relief.

The D. B. Martin Co., of Philadelphia, the big packers and refiners, have sent out a big calendar with an artistic color plate after a famous artist's work, which makes an attractive wall ornament.

Clay, Robinson & Co., the livestock commission firm, remembered their friends with a calendar in six leaves, with reproductions of Cecil Aldin's well-known series of hunting scenes.

The Grayson-Owen Co., the Oakland, Cal., wholesale meat dealers, selected President Roosevelt's well-known gate-vaulting picture as the subject for their 1906 calendar.

Country Butchers

Before Disposing of HIDES
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to Write for Prices to

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Country Hide Department,
E. J. SCHWARZ, Manager

Newark Branch,
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Cleveland Branch,
Cor. James and Merwin Sts.,
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Exporters of Pork Products
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Correspondence Solicited.

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Wool Puller and
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Manufacturer of
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Poultry Food

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after being salted with RETSOFF CRUSHED
ROCK SALT will bring more money on account
of receiving a thorough, honest cure. No time
in RETSOFF; just the pure Salt supplied by Na-
ture. We merely crush and screen to meet the
requirements. The fact that RETSOFF spreads
evenly—being dry—causes the hide to be cured
uniformly; the Salt can be used several times,
thus making it the most economical we know of.

That we are never too old to learn is exemplified
by the following: A hide man who had
used evaporated Salt for many years was in-
duced recently to put down a pack of 25 hides
with RETSOFF and a pack of same number with
evaporated; when taken up the pack salted with
RETSOFF had increased in weight 24 lbs. more
than the other pack.

If you are skeptical give RETSOFF a similar
trial, that is all we ask.

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INTERNATIONAL SALT CO.

SCRANTON, PENNA. or CHICAGO, ILLS



CHICAGO SECTION



Board of Trade memberships are being re-deemed at \$3,000 each.

Profit Dowie is about ready to "cash in." That will be more than his followers will be able to do.

Swift & Company's sales of fresh beef in Chicago for the week ending January 6 averaged 6.02 cents per pound.

The Board of Trade annual entertainment realized nearly \$700, which will be distributed among the various charities.

That odor from down Panama way reminds one of Bubbly Crick on a damp day. And time is all they kill down there, too.

Average prices of live stock were higher last week than for the same week a year ago. Cattle were up 40 cents, hogs 70 cents, and sheep 50 cents.

The Chicago Cold Storage Co. has obtained a permit to erect an eight-story brick warehouse at Nos. 1533-1537 Michigan Boulevard, to cost about \$100,000.

Things have been real lively in Chicago recently in the murder and suicide line, though a trifle slow in fires, divorces and hold-ups. There is hope, however.

Silence is golden, H. H. Rogers evidently thinks. Wonder how his honest opinion of Lawson would read? What's the use; it would burn up the paper sure.

Walter Fitch was elected president of the Board of Trade Monday for a term of one year by a vote of 591 to 547 for John B. Adams. Both candidates are very popular men.

Teddy's ideas of football reform are evidently not concurred in by his assistant secretary or the White House attaches. Even at

Yale they don't pick 'em up and drag 'em out by the feet!

The Hamler Boiler and Tank Co. have received orders for all the tanks and oleo kettles for the new plant of the Greenwald Packing Co., Baltimore, Md.; also for all the tanks and dryers for the National Packing Co., South Omaha.

Theatrical Note.—"The Jury of Fate," by C. M. S. McLellan, was seen for the first time in London last week. Don't mix this up with District Attorney Morrison's little piece (by T. R., out of Political Exigency) which will come off next week in the federal court here.

Albert H. Barrett, the popular "Yards" representative of Montgomery Ward & Co., one of the largest mail order houses in the world, would be pleased to see about one hundred thousand possible customers call on him and register. Albert was always modest in his requests.

The platform of the candidates on the regular Board of Trade ticket read as follows: "A square deal for all; special privileges for none. We believe in more business and less legislation. Every interest shall be given a fair hearing and treatment. Our members should be accorded at least the same opportunities as are enjoyed by other exchanges. The board rules shall be enforced impartially. Discipline shall be maintained. The board's private affairs should be settled within our own walls without appeals to the public. We are opposed to unnecessary publicity."

The North American Provision Co., Morris Schwabacher, president, has considerably increased its regular warehouse space of late, and also its cold storage capacity. This company does a cold storage and general warehouse business, is a member of the Chicago Board of Trade, a cash buyer of pork products, and makes liberal advances on consignments. Storage rates will be sent on application to any person or concern desiring them. Mr. Schwabacher, the president of the company, issues regular estimates of stocks of

provisions, etc., and has proven himself a most reliable figurer, his estimates being accepted as practically official.

This, from a Chicago daily, ain't so worse: "So we are going to have graft investigated by the Hon. Ed Cullerton, are we? This is a splendid idea. Now, let us make John Brennan a permanent committee, on a salary, to investigate vote buying and other election crimes. He could also head a committee of saloonkeeper statesmen, with Bathhouse, H. Dink, Powers and Cullerton as the other four, to settle the Sunday-closing question and to handle our temperance legislation.

"Bankers Bigelow and Dougherty should be recalled from their ambassadorships at Wau-pun, Wis., and Joliet, where they are unavoidably detained, and placed in charge of our treasury department so that our national banks may be put on firmer foundations. Senator Mitchell would have made an excellent Secretary of the Interior. The President's cabinet ought to have a department of life insurance, with McCurdy as secretary and McCall as first assistant.

"To insure gentlemanly conduct on the part of strikers we will make Gilhooley chief of police, with exclusive power to investigate and punish slugging.

"Mayor Dunne should be at the head of a reform bureau having for its object the elimination of saloons from politics.

"H. C. NEWTON, M. D."

SOAP MEN ENVY PACKERS.

Soap manufacturers located in Chicago who are not pleased with the success achieved by various packers with their soap departments, are endeavoring to make trouble for the latter. They have combined to agitate the repeal of the license arrangement by which the packers pay a lump sum as a license fee. They want the old rule restored, which forced the packers to pay a separate license for every main or by-product department they conducted. With the modern packinghouse system this would roll up a sum in packers' license fees alone sufficient to run several city departments. They will ask the city to levy a separate \$100 tax on every department of a packinghouse.

JAMES A. CANNON
1102 Mallery Building CHICAGO

Broker in Oils, Tallow, Greases and all Packinghouse Products. X X X Correspondence Solicited

SEE THE LIST OF
BARGAINS
ON PAGE 48

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GET OUR PRICES BEFORE BUYING
Crude or Refined Cotton Seed Oil
Our Connections Include Best Oil Mills in
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F. W. WILDER

D. I. DAVIS

WILDER & DAVIS

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General Architecture and Engineering

Abattoirs

Warehouses

Industrial Plants

Sanitary Rendering Plants

Cold Storages

Garbage Reduction Works

Ice Factories

Power Plants

Designing—Consulting—Expert Reports
Estimates—Advice

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CHICAGO

THE PRIVATE CAR SYSTEM.

(Continued from page 15.)

in shipping California fruits in ordinary meat refrigerator cars he became so enthusiastic in his belief in what refrigeration would do in the handling of fruits that he called Mr. George B. Robbins (now president of the Armour car lines) into his office, discussed various points of difference in the requirements of a refrigerator car adapted to carrying fruits and one for the shipping of meats, and finally said:

"Embody all these ideas in a plan and then place an order for the building of one thousand of the cars."

"But," cautiously suggested Mr. Robbins, "where are we going to get the business for so many cars?"

"Build them," exclaimed my father in his hearty and decisive way. "I'll pay for 'em; then you do your best to run them right."

While the cars were being built men were sent out into the fruit growing sections to hustle for business. When the growers of a district were first solicited to ship their fruits in a refrigerator car they scouted the idea and declared that the fruit would be frosted and spoiled. In their minds refrigeration and freezing were synonymous, so far as the handling of fruits was concerned. Through sensible arguments and the testimony of growers who had once tried the experiment, sufficient business was secured to employ the new cars as they came out of the shops.

About this time my father took an extensive trip through the South and came back filled with the idea that it held wonderful possibilities for fruit growers. At once he sent out a force of missionaries to see if the facts to be gained by a careful and scientific investigation would confirm this opinion. When the reports of these men came in he ordered another thousand fruit refrigerator cars from the shops. These missionaries came into closest contact with the people and almost literally helped to plant and start one after another of the now famous fruit and berry districts of the South. These soon made themselves felt, and the third thousand of cars was soon under construction.

At length the pinch of hard times began to be felt throughout the country, and Mr. My-

senburg, of the Wells and French Car Works, confessed that if unexpected orders were not secured a shut-down seemed inevitable. My father immediately placed an order for two thousand more fruit cars and advanced the money for their construction. From this time on he had a continued and increasing interest in the development of the fruit industry—a personal interest in the industry itself over and above that which he felt in the refrigeration business and its profits.

From the beginning, which I have briefly sketched, the growing of fruits and berries has been developed from the plane of comparative in an inconsequential avocation to the dignity of an immense industry. The number of private fruit refrigerator cars in the Armour lines has increased to 12,000. The operation of the private fruit refrigerator car has changed the growing of fruits and berries from a gamble to a business, from a local incident to a national industry, bringing millions of dollars annually to districts where land was worth only five to ten dollars an acre before the general distribution of fruit was made possible by this agency.

It is quite natural, then, that the lay reader should ask: If the private car has done all this for the grower of fruit, why all this outcry from the fruit men against the private car? I am glad to have the question raised, for the people, as a whole, do not know the truth of the matter: it is time they did, for they will be fair as soon as they see the real situation fairly. Their present views are based on the misinformation and malicious misrepresentations put out by the "frenzied" portion of the press and by those who have an axe to grind, but who do not care to come into the open to do it.

The fact of the matter is that this whole agitation started with the commission men of the country and not with the growers; these middlemen are the manipulators of the campaign that is being prosecuted for the express purpose of putting the private car lines out of business. With Washington, D. C., as a center, these commission men are pushing an extensive propaganda based on the cry that the grower is being oppressed by the private car lines, and that this is the growers' fight for a chance to do business at a profit. All of the

cunning at the command of these men is focused on the one purpose of spreading everywhere the impression that the private car is an "octopus" that is strangling the fruit growing industry.

What are the facts in the case? The growers are satisfied with the private car, with its service, and with the system which they recognize has been the biggest factor in building their business to its present proportion and stability and in opening to them the markets of the entire country. This, I repeat, is not the fight of the growers, but of the commission men. The real attitude of the growers toward the private car was cleverly expressed in a recent speech by a representative of the Georgia Fruit Growers' Association, who publicly declared:

"We have trained and chained the octopus so that it will feed out of our hands. The only thing we are afraid of is that this pounding of the refrigerator service by the commission merchant interests will cause the octopus to break its chains, jump the fence and leave us, as in former times, with no octopus but with all our peaches!"

This is the sentiment of the growers everywhere. I do not believe there is one exclusive grower in this country who does not recognize that the private refrigerator car is the salvation of and the mainstay of his business and absolutely vital to its prosperity and expansion. Also I as firmly believe that there is not one large grower in the country, having no interest in the fruit commission business, who does not clearly recognize that the private car line, operating on the principle of the exclusive contract, is the only practical plan of handling fruit refrigeration, and that it gives the shipper a quality and reliability of service impossible under any other scheme of operation. Scores of fruit growers' associations and hundreds of pages of such testimony have been given in the form of legal evidence under oath.

Why, then, are the commission men so interested in putting the private refrigerator car lines out of business? Because the private car has been steadily and irresistibly liberating the grower from the clutches of the commission man; because the private fruit refrigerator car has compelled the commission man to quit doing business upon the capital of the growers and forced him to become an actual buyer and a merchant in fact. Under the old conditions of shipping fruit and berries, the growers were absolutely at the mercy of the commission men. Fruit shipped without proper refrigeration stood a good chance of arriving in a more or less damaged condition, and this likelihood was the strategic stock in trade of the commission men, who were not slow to make the most of it.

Many reliable growers have testified that in the days before the private car invaded their territory they considered themselves lucky if the commission merchant did not demand a check from them to make up what the reported net results from the sale of their fruit fell short of the amount of the freight charges and of the middleman's commission. The consignments of fruit acknowledged by the consignees to have arrived in good condition were, in those days, about as rare as honest packers are now popularly thought to be. Or, if the grower's shipment was not reported to have arrived in damaged condition, he was likely to be told that the market was glutted, that the finest fruits were selling for what the poorest should bring, and that the shipper would do well if he did not have to send money to make up the freight.

Of course, it is true that without modern refrigeration great quantities of fruit did arrive at market in bad condition and that a glutted market was altogether too common. But this situation was diligently and assiduously used by the commission merchants as a club over the growers' heads. A thousand pages could be filled with the evidence of growers who have suffered this sort of thing.

The coming of the private fruit refrigerator car into a district put an end to this kind of tyranny. It carried the fruit of the growers into the usual market in precisely the same condition in which it left the orchards. There was no dodging this fact; it was so clear to

(Continued on page 44.)

NEW YORK.

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No trouble to answer questions in any language.

CHICAGO LIVESTOCK

RECEIPTS.

	Cattle.	Calves.	Hogs.	Sheep.
Monday, Jan. 1.....	9,323	331	25,216	13,485
Tuesday, Jan. 2.....	5,597	451	24,591	14,863
Wednesday, Jan. 3.....	16,589	1,232	41,255	23,239
Thursday, Jan. 4.....	10,693	746	24,323	8,605
Friday, Jan. 5.....	4,110	263	15,122	8,682
Saturday, Jan. 6.....	480	38	21,743	1,176
Total last week.....	46,502	3,071	182,250	70,050
Previous week.....	59,396	2,135	134,464	61,803
Cor. week 1905.....	62,153	4,050	198,450	68,401
Cor. week 1904.....	68,533	3,793	228,983	80,327

SHIPMENTS.

	Cattle.	Hogs.	Sheep.
Monday, Jan. 1.....	3,574	—	6,715
Tuesday, Jan. 2.....	2,092	14	7,954
Wednesday, Jan. 3.....	5,133	180	8,127
Thursday, Jan. 4.....	4,618	46	8,060
Friday, Jan. 5.....	3,172	58	7,212
Saturday, Jan. 6.....	221	—	6,439
Total last week.....	19,414	298	43,513
Previous week.....	26,785	500	37,972
Cor. week 1905.....	24,362	381	43,511
Cor. week 1904.....	23,947	256	40,225

Combined receipts of hogs at eleven markets for week ending January 6, 1906..... 450,000
 Week ago..... 412,000
 Year ago..... 550,000
 Two years ago..... 590,000
 Total receipts for year to date, as above, against as above year ago and two years ago as above.
 Receipts at six points (Chicago, Kansas City, Omaha, St. Louis, St. Joseph, Sioux City) as follows:
 Cattle..... Hogs..... Sheep.....
 Week ending Jan. 6, 1906..... 122,000 329,400 149,300
 Week ago..... 111,000 295,560 96,500
 Two years ago..... 160,200 429,700 161,300
 Receipts for year to Jan. 6, 1906, as above.
 Receipts for same period last year, as above.

CHICAGO HOG SLAUGHTER.

	Cattle.	Hogs.	Sheep.
Chicago Packers slaughtered hogs during week ending Jan. 6, 1906, as follows:			
Armour & Co.....		29,200	
Anglo-American.....		5,400	
Continental.....		4,500	
Swift & Co.....		18,500	
Hammond & Co.....		3,700	
Morris & Co.....		8,000	
Boyd-Lanham & Co.....		6,200	
S. & S. Co.....		15,800	
H. Moore & Co.....		3,500	
Robert & Oake.....		3,500	
Other packers.....		26,400	
Total.....		122,700	
Left over.....		3,000	
Week ago.....		102,100	
Year ago.....		152,100	
Two years ago.....		202,600	

AVERAGE PRICE OF HOGS.

Week ending Jan. 6, 1906.....	\$5.27
Previous.....	5.15
Year ago.....	4.58
Two years ago.....	4.84
Three years ago.....	6.52
Estimated receipts of livestock week ending January 13, 1906:	
Cattle.....	70,000
Hogs.....	175,000
Sheep.....	75,000

AVERAGE PRICE OF GOOD BEEF CATTLE.

Week ending Jan. 6, 1906.....	\$5.00
Previous week.....	4.80
Year ago.....	4.30
Two years ago.....	4.70
Three years ago.....	4.75

CATTLE.

Choice to prime steers.....	\$5.80@6.25
Common to good steers.....	4.40@5.30
Inferior to common steers.....	3.40@4.40
Yearlings, good to choice.....	4.50@5.50
Good to fancy cows and heifers.....	3.00@5.25
Fair to choice feeders.....	3.25@4.25
Fair to choice stockers.....	2.75@3.25
Good cutting and fair beef cows.....	2.40@2.85
Common to good culling cows.....	1.50@2.25
Bulls, common to choice.....	2.00@4.10
Calves, common to good.....	4.00@7.00
Calves, good to fancy.....	7.00@8.25

HOGS.

Good to choice shipping.....	\$5.25@5.35
Good to choice butcher weights.....	5.30@5.45
Good to choice heavy mixed.....	5.25@5.35
Heavy packing.....	5.10@5.25
Light mixed.....	5.25@5.35
Good to choice, 185@250-lb. weights.....	5.20@5.35
Choice to prime heavy.....	5.30@5.50
Poor to choice pigs.....	4.70@5.25
Governments, boars and stags.....	2.50@4.75

SHEEP.

Export wethers.....	\$5.50@6.25
Fair to prime wethers.....	5.50@6.25
Ewes, good to prime.....	5.75@6.00
Yearlings, fair to fancy.....	6.00@7.00
Culls, ewes, poor to fair.....	3.00@4.00
Bucks and stags.....	3.50@4.25
Native lambs, poor to choice.....	7.00@8.00
Western lambs.....	6.75@7.90
Feeding lambs.....	5.25@6.85
Breeding ewes.....	4.00@5.00

CHICAGO PROVISION LETTER.

(Special Letter to The National Provisioner from C. D. Forsyth & Co.)

Chicago, Jan. 10.—We quote to-day's market as follows: Green hams, 10@12 ave., 9; 12@14 ave., 8½; 14@16 ave., 8½; 18@20 ave., 8½; green picnics, 5@6 ave., 6½; 6@8 ave., 6½; 8@10 ave., 6¼; 10@12 ave., 6¼; green N. Y. shoulders, 10@12 ave., 6½; 12@14 ave., 6½; green skinned hams, 18@20 ave., 9½; green clear bellies, 8@10 ave., 9¼; 10@12 ave., 9; No. 1 S. P. hams, 8@10 ave., 9½; 10@12 ave., 9½; 12@14 ave., 8½; 14@16 ave., 8½; 18@20 ave., 8½; No. 2 S. P. hams, 10@12 ave., 8¼; 12@14 ave., 8½; 14@16 ave., 8; No. 1 S. P. skinned hams, 16@18 ave., 9; 18@20 ave., 9; 20@22 ave., 9; 22@24 ave., 8½; 24@26 ave., 8½; 26@28 ave., 8½; No. 1 S. P. picnics, 5@6 ave., 6¼; 6@7 ave., 6¼; 6@8 ave., 6; 7@9 ave., 5½; 8@10 ave., 5½; 10@12 ave., 5½; No. 1 S. P. N. Y. shoulders, 8@10 ave., 6½; 10@12 ave., 6½; 12@14 ave., 6½; S. P. clear bellies, 6@8 ave., 9¼; 8@10 ave., 9¼; 10@12 ave., 9.
 Prices on S. P. meats are all loose, f. o. b. Chicago.

CHICAGO PROVISION MARKET
Range of Prices.

SATURDAY, JANUARY 6, 1906.

	Open.	High.	Low.	Close.
LARD—(Per 100 lbs.)—				
January.....	7.52	7.52	7.52	7.52
May.....	7.62	7.65	7.57	7.62
RIBS—(Boxed 25c. more than loose)—				
January.....	7.35	7.35	7.35	7.35
May.....	7.52	7.55	7.47	7.52
PORK—(Per barrel)—				
January.....	13.87	13.97	13.85	13.92
May.....	14.05	14.17	14.05	14.12

MONDAY, JANUARY 8, 1906.

	Open.	High.	Low.	Close.
LARD—(Per 100 lbs.)—				
January.....	7.62	7.62	7.60	7.62
May.....	7.67	7.77	7.67	7.75
RIBS—(Boxed 25c. more than loose)—				
January.....	7.50	7.50	7.50	7.50
May.....	7.57	7.67	7.57	7.65
PORK—(Per barrel)—				
January.....	13.87	13.87	13.85	13.85
May.....	14.05	14.17	14.05	14.12

TUESDAY, JANUARY 9, 1906.

	Open.	High.	Low.	Close.
LARD—(Per 100 lbs.)—				
January.....	7.55	7.75	7.50	7.52
May.....	7.72	7.72	7.62	7.65
RIBS—(Boxed 25c. more than loose)—				
January.....	7.50	7.50	7.42	7.45
May.....	7.62	7.62	7.55	7.57
PORK—(Per barrel)—				
January.....	13.75	13.75	13.60	13.65
May.....	14.05	14.05	13.87	13.92

WEDNESDAY, JANUARY 10, 1906.

	Open.	High.	Low.	Close.
LARD—(Per 100 lbs.)—				
May.....	7.62	7.72	7.62	7.67
July.....	7.75	7.82	7.75	7.80
RIBS—(Boxed 25c. more than loose)—				
May.....	7.57	7.67	7.57	7.65
July.....	7.72	7.80	7.72	7.75
PORK—(Per barrel)—				
May.....	14.00	14.15	14.00	14.02
July.....	14.15	14.25	14.15	14.12

THURSDAY, JANUARY 11, 1906.

	Open.	High.	Low.	Close.
LARD—(Per 100 lbs.)—				
May.....	7.65	7.72	7.65	7.72
July.....	7.77	7.85	7.77	7.82
RIBS—(Boxed 25c. more than loose)—				
May.....	7.62	7.70	7.62	7.70
July.....	7.80	7.80	7.75	7.80
PORK—(Per barrel)—				
May.....	14.02	14.25	14.02	14.20
July.....	14.15	14.32	14.15	14.32

FRIDAY, JANUARY 12, 1906.

	Open.	High.	Low.	Close.
LARD—(Per 100 lbs.)—				
January.....	7.47	7.47	7.45	7.45
May.....	7.67	7.70	7.62	7.65
RIBS—(Boxed 25c. more than loose)—				
January.....	7.62	7.52	7.47	7.47
May.....	7.67	7.70	7.60	7.60
PORK—(Per barrel)—				
January.....	13.75	13.75	13.70	13.72
May.....	14.17	14.20	14.02	14.07

CHICAGO RETAIL FRESH MEATS.

NOTE.—It is difficult to quote flat retail figures applicable to the whole of the city, every market having a practically different scale according to location, class and volume of trade, etc.

Beef.

Native Rib Roasts.....	15	@18
Native Sirloin Steaks.....	16	@18
Native Porterhouse Steaks.....	20	@22
Native Pot Roasts.....	8	@10
Rib Roasts from light cattle.....	8	@10
Beef Stew.....	5	@8
Boneless Corned Briskets, Native.....	5	@10
Corned Rumps, Native.....	8	@10
Corned Flanks.....	8	@10
Round Steaks.....	10	@12½
Round Roasts.....	10	@12½
Shoulder Steaks.....	8	@10
Shoulder Roasts.....	8	@10
Shoulder Neck End, Trimmed.....	10	@7
Rolls Roast.....	10	@11

Lamb.

Hind Quarters, fancy.....	16
Fore Quarters, fancy.....	12½
Legs, fancy.....	15
Stew.....	8
Shoulders.....	10
Chops, Rib and Loin.....	22

Mutton.

Legs.....	12½
Stew.....	8
Shoulders.....	11
Hind Quarters.....	9
Fore Quarters.....	19
Rib and Loin Chops.....	19

Pork.

Pork Loin.....	11
Pork Chops.....	12
Pork Tenderloins.....	22
Pork Butts.....	10
Spare Ribs.....	9
Blades.....	5
Hocks.....	7
Pigs' Heads.....	5
Leaf Lard.....	9

Veal.

Hind Quarters.....	12½
Fore Quarters.....	16
Legs.....	8 @10
Breasts.....	10
Shoulders.....	20
Cutlets.....	20

Butchers' Offal.

Tallow.....	3 @ 3½
Mixed Bone and Tallow.....	1½ @ 2½
Calfskins, 8 to 15 lbs.....	15 @16
Calfskin, under 8 lbs. (deacon's).....	80 @85

SOUTH WATER STREET MARKETS.

Live Poultry.

Turkeys.....	@14
Fowls.....	@11½
Roosters.....	@7
Springs.....	@11½
Ducks.....	@11½
Geese.....	@11

Dressed Poultry.

Turkeys.....	@17½
Chickens.....	@11½
Springs.....	@12
Ducks.....	@12½
Geese.....	@12

Veal.

Choice.....	9 @10½
Good.....	7½ @ 8½
Medium.....	6 @ 7
Coarse, heavy.....	5 @ 6
Coarse, small.....	3 @ 5

Dressed Beef.

Ribs, No. 1.....	@12½
Ribs, No. 2.....	@8
Ribs, No. 3.....	@6
Loins, No. 1.....	@14
Loins, No. 2.....	@10
Loins, No. 3.....	@7½
Rounds, No. 1.....	@7
Rounds, No. 2.....	@6
Rounds, No. 3.....	@5
Chucks, No. 1.....	@6½
Chucks, No. 2.....	@5
Chucks, No. 3.....	@3½
Plates, No. 1.....	@3½
Plates, No. 2.....	@3½
Plates, No. 3.....	@3

Butter.

Creamery Prints.....	@27½
Creamery, Extras.....	@26½
Creamery, Firsts.....	@23
Creamery, Seconds.....	@19
Dairies, Choice.....	@22
Dairies, Firsts.....	@19
Dairies, Ladies.....	@17
Dairies, Packing Stock.....	@15½
Renovated.....	@19½
Cold storage.....	@22½

Eggs.

Extras.....	@27
Prime Firsts.....	@25
Firsts.....	@22
Fresh, at market, cases inc.....	18½ @23
Cold storage.....	@18½

JOHN WISHART & CO.

43 So. Canal Street, Chicago

CONSULTING ENGINEERS and
PACKINGHOUSE SPECIALISTSComplete Specifications, Installations
and Tests.

CHICAGO MARKET PRICES

WHOLESALE FRESH MEATS.

Carcass Beef.	
Western Cows	4 1/2 @ 5
Native Cows	5 @ 6
Western Steers	6 @ 6 1/2
Good Native Steers	7 1/2 @ 8 1/2
Native Steers, Medium	6 1/2 @ 7 1/2
Heifers, Good	6 @ 6 1/2
Heifers, Medium	5 @ 5 1/2
Hind Quarters	1 1/2 c. over Straight Beef
Fore Quarters	1 c. under Straight Beef

Beef Cuts.

Steer Chucks	5 1/2 @ 6
Cow Chucks	3 @ 4
Boneless Chucks	3 1/2 @ 4
Medium Plates	3 1/2 @ 4
Steer Plates	3 1/2 @ 4
Cow Rounds	4 1/2 @ 5
Steer Rounds	6 1/2 @ 6 1/2
Cow Loins, Common	6 @ 7
Cow Loins, Medium	6 @ 7
Cow Loins, Good	6 @ 7
Steer Loins, Light	10 @ 10 1/2
Steer Loins, Heavy	10 1/2 @ 11
Beef Tenderloins, No. 1	15 @ 16
Beef Tenderloins, No. 2	12 1/2 @ 13
Strip Loins	6 @ 6 1/2
Sirloin Butts	6 @ 6 1/2
Shoulder Clods	6 @ 6 1/2
Rolls	9 @ 9 1/2
Rump Butts	4 1/2 @ 5
Trimminings	3 @ 3 1/2
Shank	3 @ 3 1/2
Cow Ribs, Heavy	7 @ 7 1/2
Cow Ribs, Common Light	5 @ 5 1/2
Steer Ribs, Light	5 @ 5 1/2
Steer Ribs, Heavy	11 1/2 @ 12
Loin Ends, steer-native	6 @ 6 1/2
Loin Ends, cow	6 @ 6 1/2
Hanging Tenderloins	6 @ 6 1/2
Flank Steak	6 @ 6 1/2

Beef Offal.

Livers	3 1/2 @ 4
Hearts	2 @ 2 1/2
Tongues	14 @ 15
Sweetbreads	16 @ 18
Ox Tail, per lb.	4 @ 4 1/2
Fresh Tripe—plain	2 @ 2 1/2
Fresh Tripe, H. C.	4 @ 4 1/2
Kidneys, each	4 @ 4 1/2
Brains	3 1/2 @ 4

Veal.

Heavy Carcass Veal	6 1/2 @ 7
Light Carcass	7 @ 7 1/2
Medium Carcass	10 1/2 @ 11
Good Carcass	10 1/2 @ 11
Medium Saddle	10 1/2 @ 11
Good Saddle	10 1/2 @ 11
Medium Racks	8 @ 8 1/2
Good Racks	8 @ 8 1/2

Veal Offal.

Brains, each	4 @ 4 1/2
Sweetbreads	16 @ 18
Plucks	30 @ 35
Heads, each	10 @ 11

Lambs.

Medium Caul	9 @ 9 1/2
Good Caul	10 @ 10 1/2
Round Dressed Lamb	12 @ 12 1/2
Saddle Caul	12 @ 12 1/2
R. D. Lamb Saddle	14 @ 14 1/2
Caul Lamb Racks	9 @ 9 1/2
R. D. Lamb Racks	10 @ 10 1/2
Lamb Fries, per pair	12 @ 12 1/2
Lamb Tongues, each	12 @ 12 1/2
Lamb Kidneys, each	1 1/2 @ 1 1/2

Mutton.

Medium Sheep	8 1/2 @ 9
Good Sheep	9 @ 9 1/2
Medium Saddle	10 1/2 @ 11
Good Saddle	11 @ 11 1/2
Medium Racks	8 @ 8 1/2
Good Racks	8 @ 8 1/2
Mutton Legs	10 @ 10 1/2
Mutton Stew	4 1/2 @ 5
Mutton Loins	10 @ 10 1/2
Sheep Tongues, each	3 @ 3 1/2
Sheep Heads, each	5 @ 5 1/2

Fresh Pork, Etc.

Dressed Hogs	7 @ 7 1/2
Pork Loins	9 @ 9 1/2
Leaf Lard	20 @ 20 1/2
Tenderloins	20 @ 20 1/2
Spare Ribs	7 @ 7 1/2
Butts	8 @ 8 1/2
Hocks	5 @ 5 1/2
Trimminings	5 @ 5 1/2
Tails	5 @ 5 1/2
Snouts	3 @ 3 1/2
Pigs' Feet	3 @ 3 1/2
Pigs' Heads	3 @ 3 1/2
Blade Bones	3 @ 3 1/2
Cheek Meat	3 @ 3 1/2
Hog Pincks	3 @ 3 1/2
Neck Bones	3 @ 3 1/2
Skinned Shoulders	7 @ 7 1/2
Pork Hearts	2 @ 2 1/2
Pork Kidneys, each	2 @ 2 1/2
Pork Tongues	2 @ 2 1/2
Slip Bones	3 @ 3 1/2
Tail Bones	3 @ 3 1/2
Brains	6 1/2 @ 7
Backfat	6 1/2 @ 7
Hams	9 @ 9 1/2
Salts	7 @ 7 1/2
Bellies	10 @ 10 1/2
Shoulders	6 1/2 @ 7
Compressed Ham	9 @ 9 1/2
Large Compressed Ham	9 @ 9 1/2

SAUSAGE.

Cloth Bologna	6 @ 6 1/2
Bologna, large, long, round and cloth	6 @ 6 1/2
Choice Bologna	6 @ 6 1/2
Viennas	6 @ 6 1/2
Frankfurters	6 @ 6 1/2
Blood, Liver and Headcheese	6 @ 6 1/2
Tongue	6 @ 6 1/2
White Tongue	6 @ 6 1/2
Mixed Ham	6 @ 6 1/2
Prepared Ham	6 @ 6 1/2
New England Ham	6 @ 6 1/2
Berliner Ham	6 @ 6 1/2
Boneless Ham	6 @ 6 1/2
Oxford Ham	6 @ 6 1/2
Polish Sausage	6 @ 6 1/2
Leona, Garlic, Knoblauch	6 @ 6 1/2
Veal Ham	6 @ 6 1/2
Farm Sausage	6 @ 6 1/2
Pork Sausage, bulk or link	6 @ 6 1/2
Pork Sausage, short link	6 @ 6 1/2
Special Prepared, Ham	6 @ 6 1/2
Boneless Pigs' Feet	6 @ 6 1/2
Ham Bologna	6 @ 6 1/2
Special Compressed Ham	6 @ 6 1/2

Summer Sausages.

Supreme Summer, H. C., New Medium Dry	16 @ 16 1/2
German Salsami, New Dry	14 @ 14 1/2
Holsteiner, New	11 @ 11 1/2
Mettwurst, New	12 @ 12 1/2
Farmer, New	12 @ 12 1/2
Darles, H. C., New	17 @ 17 1/2
Italian Salsami, New	17 @ 17 1/2
Monarque Cervelat	13 @ 13 1/2

Sausage in Oil.

Smoked Pork, 1-50	3.75
Smoked Pork, 2-20	3.25
Bologna, 1-50	2.75
Bologna, 2-20	2.25
Viennas, 1-50	4.25
Viennas, 2-20	3.75

VINEGAR PICKLED GOODS.

Pickled Pigs' Feet, in 200-lb. barrels	7.00
Pickled Plain Tripe, in 200-lb. barrels	4.50
Pickled H. C. Tripe, in 200-lb. barrels	7.75
Pickled Ox Lips, in 200-lb. barrels	11.00
Pickled Pigs' Snouts, in 200-lb. barrels	12.00
Lamb Tongue, Short Cut, barrels	30.00

CORNED, BOILED AND ROAST BEEF.

1 lb., 2 doz. to case	Per doz. 1.30
2 lbs., 1 or 2 doz. to case	2.35
4 lbs., 1 doz. to case	4.70
6 lbs., 1 doz. to case	8.00
14 lbs., 1/2 doz. to case	17.75

EXTRACT OF BEEF.

1 oz. jars, 1 dozen in box	Per doz. 22.25
2 oz. jars, 1 dozen in box	3.55
4 oz. jars, 1 dozen in box	6.50
8 oz. jars, 1/2 dozen in box	11.60
6 oz. jars, 1/2 dozen in box	22.00
2, 5 and 10-lb. tins	1.75 per lb.

BARRELED BEEF AND PORK.

Extra Plate Beef	Per lb. 10.00
Plate Beef	9.50
Extra Mess Beef	8.50
Prime Mess Beef	9.00
Beef Hams	9.00
Rump Butts	9.00
Mess Pork	13.50
Clear Fat Backs	14.00
Family Back Pork	11.75
Bean Pork	11.75

LARD.

Pure leaf, kettle rendered, per lb., tierces	9 1/2 @ 9 1/2
Lard, substitute, tierces	6 @ 6
Lard, compounds	6 @ 6
Barrels	1/2 c. over tier.
Half barrels	1/4 c. over tier.
Tubs, from 10 to 80 lbs.	1/2 c. to 1 c. over tier.
Cooking Oil, per gal.	35 @ 35

BUTTERINE.

Nos. 1 to 6, natural color	11 @ 11 1/2
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DRY SALT MEATS.

Clear Bellies, 14@16 average	8 @ 8 1/2
Rib Bellies, 14@16 average	8 @ 8 1/2
Fat Backs, 14@16 average	7 @ 7 1/2
Regular Plates	6.75 @ 6.75
Short Clears	7.75 @ 7.75

WHOLESALE SMOKED MEATS.

Hams, 12 lbs. average	10 1/2 @ 10 1/2
Hams, 16 lbs. average	10 @ 10
Skinned Hams	9 1/2 @ 9 1/2
Calas, 6@12 lbs. average	6 @ 6
Casas, 6@12 lbs. average	6 @ 6
Breakfast Bacon, fancy	10 @ 10
Wide, 8@10 average, and Strip, 4@5 ave.	12 @ 12
Wide, 10@12 average, and Strip, 5@6 ave.	11 1/2 @ 11 1/2
Wide, 12@14 average, and Strip, 6@7 ave.	11 1/2 @ 11 1/2
Dried Beef Sets	13 @ 13
Dried Beef Insides	14 @ 14
Dried Beef Knuckles	14 @ 14
Dried Beef Outides	11 @ 11
Regular Balled Hams	14 1/2 @ 14 1/2
Smoked Balled Hams	15 @ 15
Bolled Picnic Hams	10 1/2 @ 10 1/2
Cooked Loin Rolls	15 @ 15

SAUSAGE CASINGS.

F. O. B. CHICAGO.	
Rounds, per set	15 @ 15
Middles, per set	40 @ 40

Beef bungs, per piece	8 1/2 @ 8 1/2
Hog casings, as packed	28 @ 28
Hog casings, free of salt	50 @ 50
Hog middles, per set	12 @ 12
Hog bungs, export	15 @ 15
Hog bungs, large mediums	8 @ 8
Hog bungs, prime	5 @ 5
Hog bungs, narrow	2 @ 2 1/2
Imported wide sheep casings	50 @ 50
Imported medium wide sheep casings	70 @ 70
Imported medium sheep casings	60 @ 60
Imported narrow sheep casings	30 @ 30
Beef weasands	5 1/2 @ 5 1/2
Beef bladders, medium	17 @ 17
Beef bladders, small, per doz.	17 @ 17
Hog stomachs, per piece	4 @ 4

FERTILIZERS.

Dried blood, per unit	2.52 1/2 @ 2.52 1/2
Hoof meal, per unit	2.45 @ 2.45
Concent. tankage, 15% per unit	2.22 1/2 @ 2.22 1/2
Ground tankage, 12% per unit	2.35 @ 2.35
Ground tankage, 11% per unit	2.30 @ 2.30
Ground tankage, 10% per unit	2.23 1/2 @ 2.23 1/2
Ground tankage, 9 and 20%... 2.15 to 2.17 1/2	2.15 @ 2.15
Ground tankage, 6 and 35% ton	18.00 @ 18.00
Ground raw bone, per ton	25.00 @ 25.00
Ground steam bone, per ton	18.00 @ 18.00
Unground tankage, per ton less than ground	50c. @ 50c.

HORNS, HOOFS AND BONES.

Horns, No. 1, 65@70 lbs. average	\$275.00 @ 275.00
Horns, black, per ton	25.00 @ 25.00
Horns, striped, per ton	30.00 @ 30.00
Horns, white, per ton	30.00 @ 30.00
Flat shin bones, 38 to 47 lbs. ave. ton	45.00 @ 45.00
Round shin bones, 38 to 40 lbs. ave. ton	52.50 @ 52.50
Round shin bones, 50 to 52 lbs. ave. ton	57.50 @ 57.50
Long thigh bones, 90 to 95 lbs. ave. ton	95.00 @ 95.00
Jaws, skulls and knuckles, per ton	25.00 @ 25.00

LARDS.

Prime steam, cash	7.55 @ 7.55
Prime steam, loose	7.20 @ 7.20
Neutral	9 @ 9
Compound	5 1/2 @ 5 1/2
Leaf	7 1/2 @ 7 1/2

STEARINES.

Prime oleo	7 1/2 @ 7 1/2
Oleo, No. 2	7 @ 7 1/2
Mutton	7 @ 7 1/2
Tallow	5 1/2 @ 5 1/2
Grease	4 @ 4

OILS.

Lard oil, extra winter strained, tierces	59 @ 59
Extra No. 1 lard oil	44 @ 44
No. 1 lard oil	35 @ 35
No. 2 lard oil	32 @ 32
Oleo oil, extra	19 @ 19 1/2
Oleo oil, No. 2	9 @ 9 1/2
Oleo stock	8 @ 8 1/2
Neatsfoot oil, pure, tierces	55 @ 55
Acidless tallow oil, tierces	53 @ 53

TALLOW.

Edible	5 @ 5
Prime city	5 1/2 @ 5 1/2
Choice country	5 1/2 @ 5 1/2
Packers' prime	5 1/2 @ 5 1/2
Packers' No. 1	5 @ 5 1/2
Packers' No. 2	4 @ 4 1/2
Renderers' No. 1	4 1/2 @ 4 1/2

GREASES.

White, choice	5 @ 5 1/2
White, "A"	5 @ 5 1/2
White, "B"	4 1/2 @ 4 1/2
Bone	4 1/2 @ 4 1/2
House	4 @ 4
Yellow	4 @ 4
Brown	3 1/2 @ 3 1/2
Glue stock	3 1/2 @ 3 1/2
Neatsfoot stock	3 1/2 @ 3 1/2
Garbage Grease	3 1/2 @ 3 1/2

COTTONSEED OILS.

P. S. Y., loose	30 @ 30 1/2
P. S. Y., soap grade	29 1/2 @ 29 1/2
Soap bbls., concn., 63@65% F. A.	24 @ 24
Soap stock, bbls., reg. 50% F. A.	14 @ 14 1/2

COOPERAGE.

Tierces	\$1.30 @ 1.32 1/2
Barrels, ash	1.00 @ 1.02 1/2
Barrels, ash	1.12 1/2 @ 1.15

CURING MATERIALS.

Refined saltpetre	4 1/2 @ 4 1/2
Boracic acid, crystal to powdered	10 @ 11
Borax	7 1/2 @ 8
Sugar	
White, clarified	8 @ 8 1/2
Plantation, granulated	8 @ 8 1/2
Yellow, clarified	4 1/2 @ 4 1/2
Salt	
Ashton, in bags, 224 lbs.	\$3.00 @ 3.00
Eng. packing, in bags, 224 lbs.	1.45 @ 1.45
Michigan, medium, car lots, per ton	3.40 @ 3.40
Michigan, granulated, car lots, per ton	2.90 @ 2.90
Casing salt, bbls., 280 lbs., 2x@3x	1.36 @ 1.36

LOUIS A. HOWARD & CO.

Dealers
Office, Postal Telegraph Building Chicago
Warehouse, Union Stock Yards

TALLOW GREASE STEARINES
LARD OIL NEATSFOOT OIL TALLOW OIL
CRACKLINGS BONES BONE MEAL
GLUE STOCK FERTILIZERS HOOFS AND HORNS

If you wish to sell, write us

NEW YORK MARKET PRICES

LIVE CATTLE.

Good to choice native steers.....	\$5.15@5.75
Medium to fair steers.....	4.35@5.10
Poor to ordinary steers.....	3.80@4.25
Oxen and stags.....	2.50@4.75
Bulls and dry cows.....	1.85@4.25
Good to choice native steers one year ago.....	5.20@5.85

LIVE CALVES.

Live veal calves, prime, per 100 lbs.....	\$9.75@10.00
Live veal calves, fair to good, per 100 lbs.....	8.25@9.50
Live veal calves, com. to med., per 100 lbs.....	5.50@8.00
Live veal calves, small, per 100 lbs.....	3.50@5.00
Live veal calves, buttermilks, per 100 lbs.....	—@—
Live veal calves, grassers, per 100 lbs.....	—@—

LIVE SHEEP AND LAMBS.

Live lambs, choice to good, per 100 lbs.....	\$8.00@8.50
Live lambs, com. to fair, per 100 lbs.....	6.75@7.75
Live sheep, culls, per 100 lbs.....	5.00@6.50
Live sheep, culls, per 100 lbs.....	2.50@3.50

LIVE HOGS.

Hogs, heavy weights (per 100 lbs).....	@\$5.85
Hogs, medium.....	\$5.85@5.95
Hogs, 140 lbs.....	@ 6.00
Pigs.....	@ 6.25
Bought.....	4.85@ 5.00

DRESSED BEEF.

CITY DRESSED.

Choice native, heavy.....	@ 8%
Choice native, light.....	8 @ 8%
Common to fair, native.....	@ 7%

WESTERN DRESSED BEEF.

Choice native, heavy.....	8 1/2 @ 8 1/2
Choice native, light.....	7 3/4 @ 8
Native, com. to fair.....	7 @ 7 1/4
Choice Western, heavy.....	6 @ 7
Choice Western, light.....	6 @ 7
Choice Western, heavy.....	7 @ 7 1/2
Common to fair Texas.....	6 @ 6 1/2
Good to choice heifers.....	6 1/2 @ 7
Common to fair heifers.....	5 1/2 @ 6
Choice cows.....	6 @ 6 1/2
Common to fair cows.....	5 1/2 @ 6
Good to choice oxen and stags.....	@ 7
Common to fair oxen and stags.....	@ 6 1/2
Fleshy bologna bulls.....	@ 5
Fresh pork loins, Western.....	12 @ 12 1/2

BEEF CUTS.

Ribs, No. 1, 11c.; No. 2, 8c.; No. 3, 6 1/2c. Loins,	
No. 1, 11 1/2c.; No. 2, 8c.; No. 3, 7c. Chucks, No. 1,	
6 1/2c.; No. 2, 5 1/2c.; No. 3, 4 1/2c. Rounds, No. 1, 7c.;	
No. 2, 6 1/2c.; No. 3, 5 1/2c.	

DRESSED CALVES.

Veals, city dressed, prime, per lb.....	14 @ 14 1/2
Veals, good to choice, per lb.....	12 1/2 @ 13 1/2
Calves, country dressed, prime, per lb.....	@ 13
Calves, country dressed, fair to good.....	12 @ 12 1/2
Calves, country dressed, common.....	11 @ 11 1/2

DRESSED HOGS.

Pigs.....	@ 8
Hogs, heavy.....	7 1/2 @ 7 3/4
Hogs, 180 lbs.....	@ 7 1/2
Hogs, 160 lbs.....	@ 7 1/2
Hogs, 140 lbs.....	@ 7 1/2

DRESSED SHEEP AND LAMBS.

Spring lambs, choice, per lb.....	@ 13
Spring lambs, good.....	11 @ 12
Spring lambs, culls.....	10 @ 10 1/2
Sheep, choice.....	@ 10
Sheep, medium to good.....	9 @ 9 1/2
Sheep, culls.....	@ 8 1/2

PROVISIONS.

(Jobbing Trade.)

Smoked hams, 10 lbs. average.....	11 1/2 @ 12
Smoked hams, 12 to 14 lbs. average.....	11 @ 11 1/2
Smoked hams, heavy.....	11 @ 11 1/2
California hams, smoked, light.....	7 1/2 @ 8
California hams, smoked, heavy.....	7 1/2 @ 8
Smoked shoulders.....	8 1/2 @ 9
Smoked bacon, boneless.....	12 @ 12 1/2
Smoked ham (rib in).....	11 1/2 @ 12
Dried beef cuts.....	13 @ 13 1/2
Smoked beef tongue, per lb.....	@ 17
Pickled bellies, heavy.....	9 1/2 @ 10

BONES, HOOFS AND HORNS.

Sound shin bones, av. 50@60 lbs. cut.....	—@40.00
Flat shin bones, av. 40@45 lbs. cut, per	
100 bones, per 2,000 lbs.....	42.00 @ 45.00
Hooft, per ton.....	@ 30.00
Thigh bones, av. 90@95 lbs. cut, per	
100 bones, per 2,000 lbs.....	@ 80.00
Horns, 7 1/2 oz. and over, steers, first	
quality, per ton.....	@300.00

BUTCHERS' SUNDRIES.

Fresh steer tongues.....	75 @ 80c. a piece
Fresh cow tongues.....	50 @ 60c. a piece
Calves' head, scalded.....	30 @ 40c. a piece
Sweetbreads, veal.....	25 @ 25c. a pair
Sweetbreads, beef.....	14 @ 25c. a pound
Calves' liver.....	25 @ 50c. a piece
Beef kidneys.....	7 @ 12c. a piece
Mutton kidneys.....	1 1/4 @ 2c. a piece
Livers, beef.....	@ 8c. a pound

Oxtails.....	6 @ 7c. a piece
Hearts, beef.....	6 @ 10c. a piece
Rolls, beef.....	10 @ 12c. a pound
Tenderloin beef, Western.....	15 @ 25c. a pound
Lambs' fries.....	6 @ 10c. a pair
Fresh pork, loins, city.....	10 1/2
Fresh pork, loins, Western.....	10

BUTCHERS' FAT.

Ordinary shop fat.....	2 1/2 @ 3
Suet, fresh and heavy.....	4 1/2 @ 5
Shop bones, per cwt.....	@ 25

SAUSAGE CASINGS.

Sheep, imp., wide, per bundle.....	80
Sheep, imp., wide, per keg, 50 bundles.....	\$40.00
Sheep, imp., medium, per bundle.....	80
Sheep, imp., per bundle, narrow.....	44
Sheep, imp., Russian Rings.....	—
Hog, American, free of salt, in tiers or	
bb's, per lb., f. o. b.....	50
Hog, American, kegs, per lb., f. o. b.....	50
Beef, rounds, per set, f. o. b. Chicago.....	13
Beef, rounds, per set, f. o. b. New York.....	14
Beef, rounds, per lb.....	3
Beef, bungs, piece, f. o. b. New York.....	6 1/2
Beef, bungs, per lb.....	5
Beef, middles, per set, f. o. b. Chicago.....	40
Beef, middles, per set, f. o. b. New York.....	42
Beef, middles, per lb.....	6 1/2
Beef, weasands, per 1,000, No. 2.....	@ 5 1/2
Beef, weasands, per 1,000, No. 2.....	2 1/2 @ 3

SPICES.

Pepper, Sing., white.....	Whole, Ground,
Pepper, Sing., black.....	17 18 1/2
Pepper, Penang, white.....	12 1/2 14
Pepper, red, Zanzibar.....	16 1/2 18
Pepper, shot.....	14 17
Allspice.....	14 —
Coriander.....	7 9 1/2
Cloves.....	10 12
Mace.....	16 19
	42 45

SALTPETRE.

Crude.....	@ 4%
Refined—Granulated.....	4 1/2 @ 4%
Crystals.....	4 1/2 @ 5%
Powdered.....	5 @ 5 1/2

GREEN CALFSKINS.

No. 1 skins.....	\$0.20
No. 2 skins.....	.18
No. 1 B. M. skins.....	.18
No. 2 B. M. skins.....	.16
No. 1, 12 1/2-14.....	2.00
No. 2, 12 1/2-14.....	1.75
No. 1 B. M., 12 1/2-14.....	1.80
No. 2 B. M., 12 1/2-14.....	1.60
No. 1 kips, 14-18.....	2.15
No. 2 kips, 14-18.....	2.00
No. 1 B. M. kips.....	2.00
No. 2 B. M. kips.....	1.90
No. 1 heavy kips, 18 and over.....	2.60
No. 2 heavy kips, 18 and over.....	2.40
Branded skins.....	.12
Branded kips.....	1.50
Heavy branded kips.....	1.75
Ticky skins.....	.12
Ticky kips.....	1.60
Heavy ticky kips.....	1.80
No. 3 skins.....	.12

DRESSED POULTRY.

FRESH KILLED—ICE PACKED.

Turkeys—Spring dry-picked, selected (culls	
out).....	@ 22
Spring, dry-picked, average run.....	16 @ 17
Spring, dry-picked, poor to medium grades.....	12 @ 15
Spring, scalded, selected (culls out).....	19 @ 20
Spring, scalded, average run.....	17 @ 18
Spring, scalded, poor to medium.....	12 @ 16
Old, selected (culls out).....	16 @ 17
Old, poor to medium.....	13 @ 16
Chickens, Broilers—4 lbs. per pair and un-	
der.....	
Philadelphia, dry-picked, fancy.....	23 @ 25
Philadelphia, dry-picked, average run.....	20 @ 22
New York & Pa., dry-picked, fancy.....	20 @ 22
New York & Pa., dry-picked, average run.....	16 @ 18
Western, milk-fed, dry-picked, fancy.....	18 @ 20
Western, milk-fed, scalded, fancy.....	17 @ 17
Western, dry-picked, selected (culls out).....	16 @ 17
Western, dry-picked, average run.....	14 @ 15
South and Southwestern, dry-picked, aver-	
age run.....	13 @ 14
Western, scalded, fancy.....	14 @ 15
Western, scalded, average run.....	12 @ 13
South and Southwestern, scalded, average	
run.....	11 @ 12
South and Southwestern, scalded, poor to	
medium.....	9 @ 10
Chickens, Roasting—	
Philadelphia, dry-picked, fancy.....	20 @ 22
Philadelphia, dry-picked, average run.....	17 @ 18
New York & Pa., dry-picked, fancy.....	15 @ 16
N. Y. & Pa., dry-picked, average run.....	13 @ 14
N. Y. & Pa., dry-picked, poor to medium.....	11 @ 12
Western, milk-fed, dry-picked, fancy.....	16 @ 17
Western, milk-fed, scalded, fancy.....	15 @ 16
Western, dry-picked, selected (culls out).....	14 @ 15
Western, dry-picked, average run.....	12 @ 14

Western, dry-picked, poor to medium.....	9 @ 11
Southern, dry-picked, average run.....	12 @ 13
Western, scalded, selected (culls out).....	14 1/2 @ 15
Western, scalded, average run.....	12 @ 14
Western, scalded, poor to medium.....	9 @ 11
South & Southwestern, scalded, average	
run.....	12 @ 13
South & Southwestern, scalded, poor to	
medium.....	9 @ 11

CHICKENS, MEDIUM WEIGHTS—

Philadelphia, dry-picked, average run.....	17 @ 18
N. Y. & Pa., dry-picked, average run.....	14 @ 15
Western, milk-fed, dry-picked, fancy.....	14 @ 15
Western, milk-fed, scalded, fancy.....	13 @ 14
Western, dry-picked, average run.....	12 @ 13
Western, dry-picked, poor to medium.....	9 @ 11
Southern, dry-picked, average run.....	11 @ 12
Western, scalded, average run.....	12 @ 13
Western, scalded, poor to medium.....	9 @ 11
South & Southwestern, scalded, average	
run.....	11 1/2 @ 12
Southern & Southwestern, scalded, inferior	
grades.....	9 @ 11
Fowls—Philadelphia, dry-picked, fancy.....	@ 14 1/2
Philadelphia, dry-picked, average run.....	13 1/2 @ 14 1/2
Western, dry-picked, 5 lbs. and over, se-	
lected (culls out).....	@ 14
Western, dry-picked, average run.....	11 @ 12
Western, dry-picked, poor to medium.....	9 @ 11
Southern & Southwestern, dry-picked,	
average run.....	12 1/2 @ 13
Western, scalded, selected (culls out).....	@ 14
Western, scalded, average run.....	12 1/2 @ 13 1/2
Western, scalded, poor to medium.....	9 @ 11
Southern & Southwestern, scalded, average	
run.....	12 1/2 @ 13
Southern & Southwestern, inferior grades.....	8 @ 10
Other Poultry—Old cocks, dry-scalded.....	@ 9 1/2
Old cocks, scalded.....	@ 9
Ducks, Spring, near-by, per lb.....	14 @ 16
Geese, Eastern, white, per lb.....	@ 15
Geese, Eastern, dark, per lb.....	12 @ 13
Geese, Western, average run.....	10 @ 11
Squabs, prime white, 8 lbs. to doz., per	
dozen.....	4.00 @ 4.25
Squabs, prime white, 7 lbs. to doz., per	
dozen.....	3.00 @ 3.25
Squabs, prime white, 6 @ 6 1/2 lbs. to doz.,	
per dozen.....	2.50 @ 2.75
Squabs, mixed, per dozen.....	@ 2.50
Squabs, dark, per dozen.....	1.75 @ 1.87
Squabs, culls, per dozen.....	50 @ 75

LIVE POULTRY.

Spring Chickens, per lb.....	11 1/2 @ 12
Fowls—Western, per lb.....	14 @ 14 1/2
Roosters, per lb.....	@ 10
Turkeys, per lb.....	@ 18
Buddies, per pair.....	60 @ 65
Geese, per pair.....	1.25 @ 1.75
Live Pigeons, per pair.....	@ 25

GAME.

Wild Ducks—Canvas backs, per pair.....	2.50 @ 3.00
Red head, per pair.....	1.00 @ 2.00
Black head, per pair.....	50 @ 75
Mallard, per pair.....	75 @ 1.00
Blue wing teal, per dozen.....	50 @ 60
Green wing teal, per dozen.....	30 @ 50
Buddy, per dozen.....	75 @ 1.00
Rabbits—Cotton tail, prime, per pair.....	@ 20
Jacks, per pair.....	50 @ .65

FERTILIZER MARKETS.

BASIS, NEW YORK DELIVERY.

Bone meal, steamed, per ton.....	\$22.00 @ 23.00
Bone meal, raw, per ton.....	25.00 @ 25.50
Dried blood, West, high grade, fine.....	2.70 @ 2.75
Nitrate of soda—spot.....	@ 2.25
Bone black, discard, per ton.....	13.00 @ 14.00
Bone black, discard, sugar house del.	
New York.....	15.00 @ 20.00
Dried blood, N. Y., 12@13 per cent.	
ammonia.....	2.60 @ 2.65
Dried blood, West, high grade, fine.....	2.75 @ 2.80
Tankage, 9 and 20 p. c., f. o. b.	
Chicago.....	2.20 and 10
Tankage, 8 and 20 p. c., f. o. b.	
Chicago.....	18.00 @ 19.00
Tankage, 7 and 30 p. c., f. o. b.	
Chicago.....	15.00 @ 16.00
Tankage, 6 and 35 p. c., f. o. b.	
Chicago.....	15.00 @ 16.00
Garbage tankage, f. o. b. New York.....	8.00 @ 9.00
Fish scrap, dried, 11 p. c. ammonia	
and 15 p. c. bone phosphate.....	2.70 and 10
Wet, acidulated, 6 p. c. ammonia,	
per ton.....	2.40 and 35
Azontine, per unit, del. New York.....	2.90 @ 2.95
Sulphate ammonia gas, for shipment,	
per 100 lbs.....	3.12 @ 3.15
Sulphate ammonia gas, per 100 lbs.	
spot.....	3.10 @ 3.15
Sulphate ammonia bone, per 100 lbs.	
So. Carolina phosphate rock, ground,	
per 2,000 lbs., f. o. b. Charleston.....	6.50 @ 7.75
So. Carolina phosphate rock, undried,	
f. o. b. Ashley River, per 2,400 lbs.....	3.50 @ 3.75
The same, dried.....	3.75 @ 4.00

POTASHES, ACCORDING TO QUANTITY.

Kalnit, shipment, per 2,240 lbs.....	\$8.95 @ 9.50
Kalnit, ex-warehouse, in bulk.....	9.00 @ 10.85
Kieserit, future shipment.....	7.00 @ 7.25
Muriate potash, 80 p. c., ex-warehouse	
ment.....	1.05 @ 2.05
Double manure salt (40@40 p. c.,	
less than 2 1/2 p. c. chloride), to ar-	
rive per lb. basis 48 p. c.....	1.10 @ 1.30 1/2
Sulphate potash, to arrive (basis 90	
p. c.).....	2.18 1/2 @ 2.37 1/2
Sylvinit, 24 to 36 p. c., per unit, S.P.	
.....	30 @ 40

LIVE STOCK REVIEWS

CHICAGO

(Special Letter to The National Provisioner from the Bowles Livestock Commission Co.)

Union Stock Yards, Chicago, Jan. 10.
CATTLE.—The supply of cattle for the first three days this week foots up a little over 59,000, against 31,300 for the same period last week. Early estimate Monday was 27,000, while the actual receipts were 31,385. The market up about to Monday noon was from strong to a dime higher on good grades of cattle. Two bunches of thick, fat, heavy cattle reached \$6.25, the high point since New Year's. The late trains that came in after noon were most all cattle, and the market closed 10¢@15¢. lower. Tuesday's supply was 7,850, and we had a dull, dragging trade on the ordinary to fair grades of 1,200@1,350 lb. cattle, with the market called generally 15¢. lower than early Monday and dull. To-day's estimated receipts were 23,000 cattle early and later 20,000. The market was quite active and from strong to a dime higher, or almost all of Tuesday's decline regained. Two loads of 1,522 lb. and 1,518 lb. heaves reached \$6.35, with 47 head of 1,430 lb. cattle at \$6.30 and several loads of 1,340@1,620 lb. steers going from \$6@6.20, with good fat 1,250@1,450 lb. cattle from \$5.40@5.90. Exporters principally \$5@5.25, with a few as high as \$5.35@5.40. Butcher cattle, weighing 1,100@1,250 lbs., principally from \$4.50@4.90, with low grade killers from \$4.15@4.50. We believe that the free marketing of cattle the past six weeks in a half fattened condition is going to shorten the supplies for the next six weeks, and we look for steady to strong markets with a scarcity of prime heaves that will command higher prices.

HOGS.—Receipts of hogs this week are considerably more than for the same period last week. Monday's receipts were light as the trade had expected liberal receipts on account of the high market last week. Monday's market was excited and prices 10¢@15¢. higher, top hogs selling at \$5.57½, the highest price reached since last September. Tuesday's receipts were more liberal, and as heavy receipts were expected for to-day the market was dull and slow all day. To-day's receipts, estimated early at 42,000, and on that estimate the market opened only about 5¢. lower. Later in the day it was thought there would be over 50,000 hogs, and the general market was fully 10¢. lower, top hogs selling at \$5.45, with the bulk of the sales at \$5.30@5.45. The provision market was stronger today, and this caused the late market in the hog department to firm up. We quote to-day's sales as follows: Good to best medium and heavy weight shippers, \$5.35@5.45; good to best heavy packers, \$5.30@5.40; mixed grades, \$5.25@5.35; selected light, \$5.25@5.32½¢.

SHEEP.—While to-day's receipts were not unusually liberal and about the same as we have been having for the last week or ten days, yet it was quite evident at the opening of the market that a change in the situation was at hand, and buyers quite indifferent except on the choice grades of handy weight yearlings, wether sheep and ewes, which in all did not compose more than about 10 per cent. of the offerings, and the few early sales of this class were made at about steady with yesterday's prices, after which trading was very slow and sales ranged from 10¢@15¢. lower and closed draggy with some unsold, and the half fat grades selling from 15¢@25¢. lower. Good to choice lambs sold from \$7.00@7.85, mediums from \$7.25@7.65; good to choice handy weight yearlings, \$6.65@7; strong to heavy weight yearlings, \$6.40@6.75; good to choice ewes, \$5.50@5.75; a few prime natives, \$5.75@5.85; good to choice wethers, \$6@6.20; medium to good, \$5.75@6.10.

KANSAS CITY

(Special Wire to The National Provisioner.)

Stock Yards, Kansas City, January 12.
CATTLE.—Receipts this week, 44,700; last week, 37,600; same week last year, 33,800. The proportion of fed steers was large this week. Market held steady, except a decline of 10¢@15¢. Tuesday, which represents the loss for the week; top, \$5.50; bulk, \$4.25@4.90. Choice heifers steady; top, \$5; medium heifers and cows, 10¢. lower, \$3@4.25; canners, a quarter lower. Veals firm; top, \$7; quarantine steers are a shade higher; quality much improved; bulk, \$4.40; cows steady; top, \$3.50; feeders steady; stockers weak.

HOGS.—Receipts this week, 61,700; last week, 51,500; same week last year, 53,400. Receipts not up to expectations of packers, and markets were strong in consequence; 15¢@20¢. higher for the week; pigs and light weights showing the most gain. Quality is improving each week. Orders for heavy hogs for Mexico strengthened the market this week. It is steady to-day at a shade below the week's best figures. Top, \$5.37; bulk, \$5.20@5.32; light hogs and pigs, \$5.10@5.27.

SHEEP.—Receipts this week, 37,100; last week, 31,900; same week last year, 14,500. Packers, hungry for both sheep and lambs, have cleaned up the pens daily notwithstanding liberal receipts. Sheep close steady; lambs 10¢@20¢. lower. The decline is more on account of sympathy with lower Eastern markets than being filled up here. Supply small to-day; 2,000 good to choice lambs selling at \$7.20@7.40; yearlings, \$6.25@6.50; wethers, \$5.90@6.10; ewes, \$5.25@5.60.

HIDES are steady; green salted, \$11.25@12.25; bulls and stags, 9¢; glue, 7¢; horse hides, \$2.50@3.50; green and frozen hides, 2¢. less; dry flint butcher, 19¢@21¢; culls, 13¢.

Packers' purchases this week:

	Cattle.	Hogs.	Sheep.
Armour	5,703	19,687	8,003
Amer. D. B. & P. Co.	208	.....	.....
Cudahy	4,950	9,605	2,472
Fowler	1,576	.....	1,974
Morris	4,288	9,394	5,492
Ruddy	613	.....	.....
Schwarzschild	4,511	6,832	5,189
Swift	6,326	11,822	10,706

OMAHA

(Special Letter to The National Provisioner.)

South Omaha, Jan. 9, 1906.

Now that the holidays are over, receipts are resuming normal proportions. Supplies of cattle are pretty much the same as a year ago at this time and there has been unmistakable improvement in the general character of the offerings, in fact the cattle coming at present are about as good as they ever are at this season of the year. Under the influence of the better demand and the better quality of cattle offered, the market was in very satisfactory shape for sellers last week and prices for both beef steers and cow stuff showed an advance of 15¢@25¢. Choice heaves were scarce, the best selling at \$5.25, although packers would be glad to pay \$5.50 or more if they could get the right kind of stock. Most of the trading in fat cattle was around \$4.40@4.80, with common warmed up stuff as low as \$3.50. A few loads of western hay fed steers sold around \$4.00@4.20. Choice fat heifers sold up to \$4.00, but most of the cow stuff is selling around \$2.50@3.25, and canners go as low as \$1.75. So far this week the demand has been good from all sources and the general market active and strong. There has been very little trading in stockers and feeders, as there is not a great deal of this kind of stuff offered. Prices hold strong, however, with fair to good stock selling largely at \$3.25@3.75.

Hogs are selling higher than they have been any time since last October. Receipts continue to fall below expectations, but the quality continues remarkably good, while there is apparently no let up to the demand. Local packers are all free buyers, despite the fact that hogs are selling relatively higher here

than at Eastern markets. They evidently need the hogs and are unable to force prices down on account of the active general demand. Although the heavy and butcher weight loads command a slight premium, the big bulk of the decent hogs sell within a very narrow range and quality, rather than weight, determines the price. The undertone to the trade is decidedly bullish. To-day there were nearly 11,000 hogs here and prices were about a nickel lower. Tops brought \$5.30 and the bulk of the trading was around \$5.20@5.22, as against \$5.07@5.12 a week ago.

There has also been a strong tone to the sheep market, despite the liberal supplies. The demand from all the packers is of the most vigorous kind and all desirable offerings find a ready sale at prices fully as strong, possibly a shade stronger than a week ago. Half fat stuff is slow sale, but there is not a great deal of it coming and sheep feeders are apparently taking the advice of their commission men to make their stuff fat before shipping. There is not much doing in the feeder line, as little thin stuff is coming. There is a well sustained demand, however, and prices are quotably strong. Quotations for fed sheep and lambs are as follows: Good to choice lambs, Colorado, \$7.25@7.50; good Westerns, \$7.00@7.50; good yearlings, \$6.00@6.40; good wethers, \$5.50@5.90; ewes, \$4.75@5.50. Quotations for feeder sheep and lambs.

ST. JOSEPH

(Special Letter to The National Provisioner.)

St. Joseph, Mo., Jan. 9, 1906.

Receipts of cattle have only been moderate at all points this week, and in consequence there is a little better tone in trade in steers. While prices are not quotably higher than the close of last week, most sales show a little strength and others have sold along the line with fine sales of last week. Bulk of offerings thus far this week have been a good class of handy fat medium and plain fat heavy steers that have sold largely at \$4.65 to 5.00, with good fat heavy corn steers at \$5.25. Kinds selling at \$4.50 and under have shown the least strength. The demand for cows and heifers has been very strong and prices are about steady with the higher close of last week. Bulls show no change, and best veals are 25¢. higher. The supply of stock and feeding cattle has been very small and prices have shown some strength on the best grades. Demand calls for good to choice smooth, strong weight stockers and feeders on the native order, and well bred yearlings and calves. Country demand has been sufficient to keep supplies in the stocker and feeder division at a very low ebb, and dealers are anxious for more liberal receipts. Following are current quotations: Native steers, \$3.75@5.80; Texas and Westerns, 3.15@4.75; cows and heifers, \$1.50@4.70; bulls and stags, \$1.75@4.60; veals, \$3.00@7.00; yearlings and calves, \$2.65@3.75; stockers and feeders, \$2.75@3.90.

The hog market opened the week with very light receipts at all points, and a 5¢. to 10¢. higher market, but to-day receipts were more liberal and the market declined to the extent of yesterday's advance, thus putting prices back to where they were the close of the week. Prices to-day ranged from \$5.10@5.30, with bulk selling at \$5.15@5.25; the quality of hogs continues very good, which indicates liberal supplies in producer's hands, and sharp winter weather will no doubt create a very lively movement marketward. In this event the country can very naturally anticipate a very much lower level to values. There seems to be no diminution in packing demands, whether prices are up or down, as packers here take everything offered readily and could use a great many more than are available and still maintain prices on a higher level than competitive points.

Supplies of sheep this week have been quite large, aggregating about twelve thousand for the two days, with a larger proportion a Colorado product. Lambs are quotable at \$7.40@7.65; yearlings at \$6.40@6.65; wethers at \$5.80@6.25, and ewes at \$4.35@5.65, which is a little stronger than the close of last week.

THE GEO. F. TAYLOR CO.
Fuller's Earth and Bone Black
 For Filtering Purposes
 ALSO ALL FERTILIZER CHEMICALS
 AND MATERIALS.
 No. 50 Pine St., New York

NEW YORK LIVESTOCK

WEEKLY RECEIPTS TO JANUARY 8, 1906.

	Beeves.	Cows.	Calves.	Sheep.	Hogs.
Jersey City.....	3,027	1	444	10,604	13,512
Sixtieth st.....	1,102	65	2,002	12,389	—
Fortieth st.....	—	—	—	—	21,214
Lehigh Valley.....	5,485	—	—	—	—
Weehawken.....	1,421	—	—	—	—
Scattering.....	—	66	64	28	3,500
Totals.....	11,035	132	2,600	23,021	38,226
Totals last week.....	10,312	90	2,244	16,101	35,637

WEEKLY EXPORTS.

	Live cattle.	Live sheep.	Qrs. of beef.
Schwarzschild & S., So. Roman...	350	—	—
Schwarzschild & S., So. Minneapolis	37	—	—
Schwarzschild & S., So. St. Louis.	—	1,500	—
J. Schamberg & Son, So. Roman...	350	—	—
J. Scha'b'g & Son, So. Minneapolis	375	—	—
J. Schamberg & Son, So. Idaho...	100	—	—
Morris Beef Co., So. Canada...	—	3,200	—
Armour & Co., So. St. Louis...	—	2,400	—
J. Sterne & Son, So. Minneapolis...	—	400	—
Cudahy Pkg. Co., So. Campana...	—	1,550	—
Miscellaneous, So. Bermudian...	39	35	—
Total exports.....	1,580	35	9,050
Total exports last week.....	1,948	—	15,976

MEAT AND STOCK EXPORTS

WEEKLY EXPORTS TO JANUARY 8, 1906.

	Live cattle.	Live sheep.	Qrs. of beef.
New York exports.....	1,580	35	9,050
Boston exports.....	2,808	—	10,270
Baltimore exports.....	1,755	—	—
Philadelphia exports.....	1,159	—	—
Portland exports.....	2,491	1,450	—
Newport News exports.....	1,047	—	—
St. Johns exports.....	2,356	328	—
Destination of exports:			
To London.....	3,493	—	7,190
To Liverpool.....	5,800	1,450	12,130
To Glasgow.....	2,340	328	—
To Bristol.....	758	—	—
To Manchester.....	570	—	—
To Hull.....	100	—	—
To Antwerp.....	96	—	—
To Bermuda and West Indies...	39	35	—
Totals to all ports.....	13,205	1,778	19,320
Totals to all ports last week.....	9,985	—	27,852

SLAUGHTER REPORTS

Special reports to The National Provisioner show the number of livestock slaughtered at the following centers for the week ending January 6:

CATTLE.

Chicago.....	27,088
Kansas City.....	22,410
St. Joseph.....	6,555
Cudahy.....	378
Wichita.....	146
Louisville.....	121
New York and Jersey City.....	9,578
Fort Worth.....	9,159
Detroit.....	963
Buffalo.....	4,700

HOGS.

Chicago.....	108,737
Kansas City.....	59,670
St. Joseph.....	32,510
Cudahy.....	21,601
Ottumwa.....	14,183
Cedar Rapids.....	17,775
Wichita.....	5,285
Bloomington.....	1,769
Indianapolis.....	21,315
Louisville.....	4,630
New York and Jersey City.....	38,226
Fort Worth.....	13,499
Detroit.....	5,173
Buffalo.....	51,850

SHEEP.

Chicago.....	60,968
Kansas City.....	27,439
St. Joseph.....	12,291
Cudahy.....	100
Wichita.....	28
New York and Jersey City.....	22,985
Fort Worth.....	786
Detroit.....	2,362
Buffalo.....	39,000

PRODUCE EXCHANGE NOTES.

Visitors: John Wallace, London; W. S. Crichton, Liverpool; E. J. Henry, W. Burrows, Henry Stemper, Chicago; Marshall Hull, St. Louis.

Wade H. Armstrong was proposed for membership.

GENERAL MARKETS

LARD IN NEW YORK.

Western steam, \$7.75@7.90; city steam, \$7.60; refined, Continent, tes., \$8.10; do., South Africa, tes., \$8.50; do., kegs, \$9.50; compound, \$6.00.

LIVERPOOL.

(By Cable to The National Provisioner.)

Liverpool, Jan. 12.—Beef, extra India mess, tierces, 76s. 3d.; pork, prime mess, Western, 67s.; shoulders, 39s.; hams, short, clear, 44s. 6d.; bacon, Cumberland cut, 44s. 6d.; do., short rib, 45s.; do., long clear, 30@35 lbs., 46s.; do., 35@40 lbs., 45s. 6d.; backs, 43s. 6d.; bellies, 48s. 6d. Tallow, 24s. Turpentine, 48s. 6d. Rosin, common, 9s. 9d. Lard, spot, prime Western, tes., 39s.; do., American refined, 20-lb. pail, 40s. 6d. Cheese, white new, 63s.; do., colored, 63s. American steam lard (Hamburg), 50 kilos, 39¼ marks. Tallow, Australian (London), 28s. 3d. Cottonseed oil, refined (Hull), 18s. 10½d. Refined petroleum (London), 6½d.; linseed (London), 46s. 4½d.; linseed oil (London), 22s. 10½d.

HOG MARKETS, JAN. 12.

CHICAGO.—Receipts, 35,000; steady; \$5.20 @ \$5.47½.
KANSAS CITY.—Receipts, 9,000; steady; \$5.15 @ 5.37½.
OMAHA.—Receipts, 7,500; shade higher; \$5.15 @ 5.35.
INDIANAPOLIS.—Receipts, 10,000; lower; \$5.20 @ 5.55.
EAST BUFFALO.—Receipts, 6,800; steady; \$5.60 @ 5.70.
ST. LOUIS.—Higher; \$4.70 @ 5.45.
CLEVELAND.—Receipts, 35 cars; active; \$5.50.

FRIDAY'S CLOSINGS.

Provisions.

The hog products markets opened a little slacker, and soon became rather more in the buyer's favor, on present and expected hog supplies at the packing point.

Cottonseed Oil.

The New York market was firm. "Call" prices: Prime yellow, January, 33@33½c.; February, 33¼@34c.; March, 33¼@34c.; May, 33½@33¾c.; July, 34@34½c. There has been considerable done in crude in tanks at 26c. in the Southeast, more particularly in Georgia and Alabama, and more money has been paid in the Valley, and, we think, in Texas, with some reports of a relatively high price paid in Memphis.

Tallow.

The market is firm and not changed from the features in the weekly review.

Oleo Stearine.

Firm at 7½c. in New York. Sales for week, 250,000 pounds in New York at 7½c., and 200,000 pounds in Chicago, at 7½@7½c.

CHEMICALS AND SOAP SUPPLIES.

(Special Letter to The National Provisioner.)

New York, Jan. 12.—Quotations are as follows:
74 per cent. caustic soda, \$1.85 to \$1.90 for 60 per cent.
76 per cent. caustic soda, \$1.90 to 2c. for 60 per cent.
60 per cent. caustic soda, 2c. per lb.
98 per cent. powdered caustic soda, 3c. lb.
58 per cent. pure alkali, 90c. to 1c. for 48 per cent.
48 per cent. carbonate soda ash, \$1.10 per 100 lbs.
Borax, 8c. per lb.
Talc, 1½c. per lb.
Palm oil in casks, 5½c. lb., and in barrels 61½c.
Green olive oil at 57c. to 58c. per gal.
Yellow olive oil, 62c. to 65c. per gal.

Green olive oil foots, 5 to 5½c. lb.
Ceylon cocoanut oil, 6½c. to 6½c. lb.
Cochin cocoanut oil, 7½c. to 7½c. lb.
Cottonseed oil, 33c. to 35c. per gal.
Corn oil, 4¼c. per lb.

WESTERN FERTILIZER MARKET.

(Special Letter to The National Provisioner.)

Chicago, Jan. 11.—The market is in good shape and prices are firm, with a prospect of a large fertilizer demand in the South for the coming season. (See page 39 for latest quotations.)

RECEIPTS AT CENTERS

SATURDAY, JANUARY 6, 1906.

	Cattle.	Hogs.	Sheep.
Chicago.....	500	21,000	2,000
Kansas City.....	1,000	5,000	2,000
Omaha.....	—	6,000	—

MONDAY, JANUARY 8, 1906.

Chicago.....	27,000	40,000	23,000
Kansas City.....	9,000	6,000	6,000
Omaha.....	3,000	4,000	13,000

TUESDAY, JANUARY 9, 1906.

Chicago.....	7,000	40,000	18,000
Kansas City.....	16,000	15,000	7,000
Omaha.....	5,000	11,000	10,000

WEDNESDAY, JANUARY 10, 1906.

Chicago.....	23,000	42,000	22,000
Kansas City.....	8,000	13,000	5,000
Omaha.....	5,500	9,000	7,000

THURSDAY, JANUARY 11, 1906.

Chicago.....	9,000	45,000	16,000
Kansas City.....	7,000	11,000	4,000
Omaha.....	5,000	9,000	3,000

FRIDAY, JANUARY 12, 1906.

Chicago.....	2,000	35,000	7,000
Kansas City.....	2,000	9,000	2,000
Omaha.....	2,000	7,500	3,500

THE SWIFT ANNUAL MEETING.

(Concluded from page 15.)

Following is the financial statement with comparisons with the two previous years:

RESOURCES.

	1905.	1904.	1903.
Cash.....	\$ 2,739,623	\$ 2,485,963	\$ 1,725,220
Acc'ts receivable.....	20,990,767	16,290,990	13,871,392
Inventory (cattle, sheep, hogs and prod't on hand).....	18,066,213	15,531,180	15,314,160
Stocks and bonds.....	8,024,294	7,889,998	2,094,172
Horses, wagons and harness.....	113,046	106,449	120,912
Investments, including branch houses.....	7,874,627	7,652,519	6,361,707
Real estate improvements and equipment.....	16,244,986	14,698,987	14,112,509
Totals.....	\$74,153,560	\$64,657,096	\$54,200,075

LIABILITIES.

Capital.....	\$35,000,000	\$35,000,000	\$25,000,000
Surplus.....	9,996,005	8,246,005	6,496,005
Bonds.....	5,000,000	5,000,000	5,000,000
Bills payable.....	20,509,806	13,334,661	14,397,938
Accounts payable.....	2,890,286	2,475,998	2,679,705
Reserved for tax and other items.....	894,963	537,932	563,926
Received for bond interest.....	62,500	62,500	62,500
Totals.....	\$74,153,560	\$64,657,096	\$54,200,075

QUICK ASSETS.

Cash.....	\$ 2,739,623	\$ 2,485,963	\$ 1,725,220
Acc'ts receivable.....	20,990,767	16,290,990	13,871,392
Inventory (cattle, sheep, hogs and prod't on hand).....	18,066,213	15,531,180	15,314,160
Stocks and bonds.....	8,024,294	7,889,998	2,094,172
Totals.....	\$49,820,900	\$42,198,140	\$34,354,944

The full list of officers and directors elected was as follows: Chairman, Edwin C. Swift; President, Louis F. Swift; Vice-President, Edward F. Swift; Treasurer, Laurence A. Carton; Secretary, D. E. Hartwell; Assistant Treasurer, I. A. Vant; Assistant Secretary, C. A. Peacock; General Counsel, Albert H. and Henry Veeder; Directors, Edwin C. Swift of Boston, Louis F. Swift of Chicago, Dumont Clarke of New York, Laurence A. Carton of Chicago, John R. Redfield of Hartford, Conn.; Edward F. Swift of Chicago, and N. E. Hollis of Boston.

RETAIL SECTION

NEWS OF THE ASSOCIATIONS.

The Master Butchers' Association of Fort Wayne, Ind., is waging a war against itinerant meat peddlers, and is trying to secure the appointment of a city meat inspector to regulate or suppress these vagrant butchers.

Retail butchers of Bridgeport, Conn., are talking of a plan to open a wholesale house there to sell Western meat on consignment and compete with existing wholesale houses. The move has the support of the local association.

The Grand Rapids, Mich., branch of the Master Butchers of America has elected the following officers for the ensuing year: W. J. Kling, president; Claude M. Bradford, vice-president; J. H. Bowditch, secretary; Jerome De Hoop, treasurer; H. R. Huntington, sergeant-at-arms.

The directors of the Butchers' Hide Association of Cincinnati, O., have elected Michael Settlemeyer, president; Peter Mode, vice-president; Fred W. Strebel, secretary; Gottlieb Erhardt, treasurer; Frederick Pfeister, superintendent. The annual report to the stockholders showed a prosperous business during the year just ended.

Retail butchers of Grand Rapids, Mich., are endeavoring to induce wholesalers and jobbers not to sell direct to hotel and restaurant trade, which the butchers consider their province. An attempt will be made to draw up contracts to this effect, by which the butchers will give their trade to the wholesalers who sign such contracts, and not to others.

The Salt Lake Butchers' and Grocers' Association has elected the following officers for the ensuing year: C. M. Lees, president; F. H. Weight, vice-president; Eli Price, second vice-president; W. J. Dollomen, secretary and

business manager; J. A. Ekinon, treasurer; H. A. Melane, sergeant-at-arms; board of directors, J. M. Marriott, chairman; A. Hudson, C. J. Folger, L. Jensen, William Wood, D. L. Davis, Ed Nott.

The State Master Butchers' Association of Ohio has affiliated with the United Master Butchers' Association of America and elected the following officers: President, Adam Klein; first vice-president, C. L. Mason; second vice-president, P. H. Schlingman; secretary, A. S. Pickering; treasurer, H. Muller; sergeant-at-arms, A. F. Deikman; inside guard, T. Richmond; outside guard, J. Babel; trustees, Thomas Bradley, W. J. Lees and G. Zimmerly.

The Grocers' and Meat Dealers' Credit Protective Association of Syracuse, N. Y., has elected officers as follows: President, John D. Miller; vice-president, James H. Hayhoe; secretary, William J. Meagher; treasurer, Max Schwartz; board of directors, W. J. Steinaker, M. T. McLaughlin, D. A. Palmer, Thomas McGinnis and Fred Jaquin; delegates to the national convention to be held at Niagara Falls January 23, John D. Miller, James H. Hayhoe, William J. Meagher, Max Schwartz and John H. Phillips.

Meat Cutters' and Butcher Workmen's Union No. 1, of Syracuse, N. Y., has elected the following officers: President, G. J. Ulrich; vice-president, William Howe; recording and corresponding secretary, Peter Gabel; financial secretary, W. J. Thompson; treasurer, Edward Hixson; guide, John Dwyer; guard, Theodoré Bernhardt; sergeant-at-arms, Joseph Miller; trustees, Richard Peverley, Frederick Maas and William Flynn; delegates to Central Trades and Labor Assembly, Homer D. Call, A. C. Kuch and A. K. Matthews.

Bargains in equipment can be secured if you will consult page 48 each week.

LOCAL AND PERSONAL.

J. Young has engaged in the meat business at Union, Neb.

W. M. Smith has opened a new butcher shop at Portland, Ore.

J. Delaney has opened a new butcher shop at Tribune, Neb.

M. Adlen has engaged in the meat business at Portland, Ore.

F. J. Walker has opened a new butcher shop at Fairfield, Wash.

W. H. Halil has engaged in the meat business at Eugene, Ore.

Newton Williams has opened a new market at Stittville, N. Y.

C. V. Jones has engaged in the meat business at Langley, Wash.

O. D. Franks has sold his butcher shop at Wayne, Neb., to J. Frei.

Harmon & Bald have engaged in the meat business at Auburn, Neb.

J. L. Hartman has opened a new butcher shop in Troutcreek, Mont.

U. G. Smith has sold his meat market at Greeley, Neb., to G. Barry.

Herman Reichardt has opened a new butcher shop at Messena, Ia.

J. C. Butler has sold his meat business to C. Shumon at Carnegie, Okla.

J. W. Richards has sold his meat business at Dexter, Me., to George Richie.

M. W. Johnson has bought the market of Beaman & Drury at Athol, Mass.

Stanley Adamson has purchased the meat market of O. Lester, at Oak, Neb.

F. C. Sheldon has opened a new market on Union street, Easthampton, Mass.

J. J. Tacharner has sold his butcher shop at Chadron, Neb., to Philip Trier.

Geo. B. Graf has sold his meat business to H. C. Littlethum at Shawnee, Okla.

J. J. Thompson has purchased the meat market of James Hill, at Osburn, Kas.

Jobe & Davidson have sold their meat business at Bristow, I. T., to Ed. Adkins.

This is
our
Packing
House
Special—
Just one
of the
famous



S. & S. SKINNING KNIVES

"The knife that is always the same." Everyone made from our own special formula steel, and GUARANTEED to hold an edge. No hard spots, or soft spots. A knife that you can work with—doesn't require constant sharpening. A postal will bring quotations in any desired quantity.

NATIONAL CUTLERY COMPANY . . . DETROIT, MICH.

R. Pecore has succeeded to the meat market of L. Pecore & Son, at Shawnee, Okla.

Gartland & Zelius have established a meat and produce business at Pensacola, Fla.

J. D. & F. Snyder have purchased the meat market of James Littleton, at Hinton, Ia.

Van Gorp & Klein have purchased the meat market of Vander Zyle Bros., at Pella, Ia.

W. E. McQuinstoy has purchased the meat market of C. D. Nolty at Cunningham, Kas.

A new union of meat cutters and butchers' workmen is being formed at Kalamazoo, Mich.

Perley Andrews has gone into the meat business at Searsport, Me., with Edgar Ward.

Nunemaker & Ziegler have bought the meat business of F. J. Grunkemeyer, at Burwell, Neb.

Weaver & Beck have been succeeded in the meat business at Huntington, Ore., by Beck Bros.

Edward Alkire has sold his market at No. 110 Vine street, Lafayette, Ind., to Harvey Sense.

Asa Wells has sold his meat business at Knoxville, Tenn., and will go with the T. E. Burns Co.

Gustin & Real have succeeded to the meat and grocery business of G. E. Gustin at Topeka, Kas.

The butcher shop of John Davis at Petersburg, Va., was destroyed by fire last week. Loss, \$4,000.

J. A. Signaigo & Son have succeeded to the meat business of J. A. Signaigo & Co., at Memphis, Tenn.

J. H. Stuckey has purchased the meat and grocery business of O'Connor & Welch at Macksville, Kas.

Fulk & Skinner have been succeeded in the meat and grocery business by E. Skinner, at New Market, Ia.

A. G. Keys has been succeeded in the meat and grocery business at Topeka, Kas., by Keys & Gallagher.

Weaver & Bond have sold their wholesale and retail meat business at Canon City, Colo., to Chapson & Hadley.

Alfred Seesel & Son have succeeded to the sausage manufacturing business of Albert Seesel at Memphis, Tenn.

A. E. Bradle has succeeded to the meat and grocery business of the Bradley Mercantile Company, at Oakland, Kas.

F. J. Sexsmith has sold his interest in the meat and grocery business of Johnson, Sexsmith & Co., at Greenfield, Ia., to Morris Kenworthy.

A MONSTER MARKET.

One of the sights of upper New York City to the visitor is the mammoth retail meat market of C. Weisbecker on 125th street, near Eighth avenue. It is really a marvel in up-to-date meat-selling on a large scale. The immense show-case refrigerators with their dozens of sides of beef lining the walls, and other similar features have been described and illustrated in these columns. Weisbecker's trade continues to grow and to strain the facilities of his establishment. He has lately arranged to install a complete new 40-ton refrigerating plant to provide the cold air and furnish the ice for his shop, and with it he will put in two 150 horse-power oil engines to provide power for shop purposes and for running the lighting plant. This sounds big for a butcher shop, but it is not a bit too big to keep this store running.



POWERFUL—PRACTICAL—PERFECT

DIVINE'S WATER MOTOR can be attached to any faucet and always ready for many uses. $\frac{1}{4}$ Horse Power on 80 lbs. pressure.

Power for Grinding Knives, Cleavers, Splitters, Etc.
Power for Lathes and All Small Butchers' and Other Machinery

PRICE COMPLETE, including Emery, Buffing and Pulley **\$4.00**
Wheels, Faucet Connections, Polishing Composition, etc.
\$5.50 and this Adv. will get the Motor

LIBERAL DISCOUNT TO THE TRADE
ELECTROTYPES AND CIRCULARS FREE

DIVINE WATER MOTOR CO.
296 BROADWAY NEW YORK

THAT "POISON SQUAD" AGAIN.

Preservatives may or may not be objectionable, but there is as yet no evidence worth a straw to show that, as used in food products, either salicylic acid, formaldehyde, benzoate of soda, borax or any other chemical used as commonly is capable of doing harm to the human race, says Merchants' Review. The experiments with the "poison squad" in Washington have convinced nobody because they were made under abnormal conditions. Consumers do not swallow preservatives in capsules, but in such small doses that neither tongue nor nose can recognize their presence. It is obvious to thinking people who have studied the question that the use of preservatives, by enabling poor people to obtain fruits out of season, etc., has done more good than it could do harm even if we concede all that the Wileys and Warrens have said against the preservatives to be true. It is time this matter of the slander of the food supply was ventilated and some of the high salaried officials who have done the slandering were cast out of office.

WELDING ALUMINUM.

Aluminum is a metal which is more and more extensively used each year. One of the greatest obstacles to its employment in many cases has been the difficulty of joining two pieces together. This trouble has been overcome by the utilization of a property of the metal, which property is remarkable in the degree of its development in aluminum, for it is in a minor degree recognizable in other metals. If aluminum is heated by a blow-pipe it becomes coated with a thin film of oxide, and this forms or aids in forming a sort of bag of some strength. It is possible to melt a rod of aluminum and to puncture the bag and let the melted metal escape, leaving a hollow shell behind it. The new process of joining two bars consists in heating the ends until they attain this state. They are then by a lever brought suddenly together and simultaneously a screen is dropped in front of the blast lamp and a douche of cold water is run and caused to impinge upon the heated part. The result is an almost perfect weld. The theory of the action is this: The melted metal is held in contact by the films of oxide which surround it. When the ends are pressed together the film is broken, and the metal of the bars flow together. At the very instant that this occurs the cold water is applied, and before the melted metal can run away it is solidified, and the bars are joined. It is hoped, by using a mandrel, which is a cylindrical bar of iron fitting the interior of a pipe, that pipes of aluminium can be joined by this process.

PROFIT FOR BUTCHERS, TOO.

Why does the big packer make money? Because he has reduced his business to a science. He accounts for every bit of the raw material he uses, and applies the latest methods and machinery in his processes. Why can't the butcher, the sausage-maker, the little meat man, do the same thing? He can, for they are making labor-saving and money-saving machines and appliances and materials for him as well as for the big fellow. These things—only the best of them—are described on the page headed "For Purchasing Departments" every week. Look out for it.

THE PRIVATE CAR SYSTEM.

(Continued from page 37.)

the grower, the railroad and the commission man that it was beyond question or dispute. That did away with the time-worn excuse of the commission man that the shipment was received in badly damaged condition. The backbone of that stock claim was broken.

By the same token, the private refrigerator car put the other stock excuse of a middleman out of service. The glutted market became a vanishing quantity under the ability of the private fruit refrigerator car to take its cargo in prime condition to remote as well as near markets. In a word, not only did the private fruit refrigerator car multiply the markets open to the grower and shipper, and insure the good condition of his fruit in transit, but the private system permitted him to divert his car at will and while in transit from its original destination to another less congested. In short, the private car enabled the grower to know that he could put his fruit into a good market in good condition.

Now these changes from the old line-up completely overturned the business of the commission merchant. The grower was no longer helpless in his hands, and the result was that the middleman had to get out and hustle for business; he had to go to the grower and treat with him on something like a fair basis. The history of every fruit district in which the private refrigerator car has operated for a period of years shows that its advent was followed by the buyers who went out to get their share of the crop and to bid against each other in order to do so.

In a single short article it is clearly impossible to more than touch the high spots in a controversy of the magnitude of that which has thus been stirred up about the private car lines—and to do so in merely a suggestive way at that. Therefore I have attempted in this paper little more than an introduction to the subject, but I shall undertake subsequently to deal in detail with facts and conditions which can only be put briefly and assertively in this opening article.

(To be concluded.)

READ THE AUTHORITIES.

Keep up to date in your business. Text-books by the authorities in every field at special prices. Write The National Provisioner, Produce Exchange, New York.

